FAMILIAR WILD FLOWERS


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HAIRY ST. JOHN'S WORT.



HAIRY ST. JOHN'S WORT.

Hypericum hirsutum. Nat. Ord., Hypericaceæ.

THE hairy St. John's Wort, or *Hypericum hirsutum*, may be commonly met with in woods and in the rank undergrowth of the copse and thicket, though it seems to thrive best when on a soil of chalk. It is a perennial, and those who would see it at its best must visit the localities we have named during July or August, when its slender spine bears its terminal of brilliant yellow blossoms. The root of the hairy St. John's Wort is brown, fibrous, and somewhat woody; the stem thrown up is erect and rigid, and ordinarily about two feet in height, though we may occasionally see specimens that exceed this. It is round in erection, and on being cut through is found to be solid, unlike that of its near relative, the square-stalked St. John's Wort, or *Hypericum quadrangulum*, where the rectangular stalk is a prominent specific feature. The stem of the hairy St. John's Wort is always more or less hairy or downy,

and thus justifies the common English name of the plant; it is often reddish in colour, too, though this is a matter that may or may not be according to the place of growth. We frequently find that plants which grow in somewhat open situations, where the struggle for life is somewhat harder, have tinted stems, while similar plants growing amidst the surrounding vegetation and in the shelter of a wood or hedgerow remain green; our present plant is one of the numerous cases in point. The stem is very stiff and rigid in character, and is either quite simple or very slightly branching. This branching, when it takes place at all, is near the summit. The leaves are a full rich green in colour when the light shines through them, but, like the stems, they are so covered with short hairs that their upper surfaces receive a greyish tinge in consequence. They are rather larger than in some of the species of *Hypericum*, spring in pairs from the stem, have very short foot-stalks, and are marked with multitudinous, minute, transparent or pellucid dots, a feature that they share in common with several of the other St. John's Worts, and which has earned for them the vulgar name of "thousand holes."

In the leaf axils we ordinarily find two or four small leaves: these may be clearly seen in our illustration. At times these develop into branches, and at others are wholly wanting, but the normal state of things is as we have figured it. The calyx is composed of five narrow segments, its edges being fringed with black glandular dots. Six of the genus exhibit this glandular development: the trailing St. John's Wort, or *Hypericum humifusum*; the flax-leaved St. John's Wort, or *H. Linariifolium;* the slender St. John's Wort, or *H. pulchrum;* the mountain St. John's Wort, or *H. montanum;* the marsh St. John's Wort, or *H. Elodes;* and the

species we here figure. The corolla is composed of five bright yellow petals : it will be noticed that, as in the case of the periwinkle, *Vinca major*, a plant we have already included in our series, the general effect of the corolla is regular and symmetrical, but that if we examine any one of the five petals composing it we shall find it un-symmetrical. A buttercup or a rose petal we could double down the centre and so get two similar halves, as indeed we could with the petal of almost any other flower, but it will readily be seen on turning to our drawing of the periwinkle or in studying the present figure that it would be impossible so to halve their petals. We get, therefore, a symmetrical whole out of a series of unsymmetrical parts. The stamens of the hairy St. John's Wort are numerous, and on dissection of the plant will be found to be in three bundles, hence they are said botanically to be triadelphous. The filaments are very slender and straight, shorter than the petals, within which they form a conspicuous feature. The styles are three in number, simple in character and widely spreading ; and the seed-vessel is an oblong capsule of three cavities and three valves or partitions, forming a very pretty section when a keen-edged knife has made the necessary sharp cut across it. The seeds within are numerous and very minute. The older botanists, not paying much regard to niceties of distinction, appear to have overlooked this species of St. John's Wort. By superficial observers the discrimination between this and the *H. perforatum* is not often observed, but it differs from it in being a taller plant, in being covered with hair, in having a perfectly round stem, and in the glands on the calyx being far more numerous and conspicuous.

By some of the older writers the hairy St. John's

Wort was called the *H. villosum* or the *Androsæmum hirsutum*. Woodville, in his "Medical Botany," published in 1790, tells us that the *H. perforatum* was "in great request with the ancients, who prescribed it in hysteria, hypochondriasis, and mania. They also imagined that it had the peculiar power of curing demoniacs, and thence obtained the name of *Fuga dæmonum*." Hence its blossoms were hung by the peasantry both of England, France, and Germany in their windows to avert the evil eye and the power of the spirits of darkness. "Gathered upon a Friday, in the hour of Jupiter, when he comes to his operation, so gathered, or borne, or hung upon the neck, it nightly helps to drive away all phantastical spirits." As we find that the old writers class many of the species of St. John's Wort together, and fail to discriminate the hairy St. John's Wort at all, we may readily assume that the plant we represent often took the place of other species and shared to the full in all their mystic virtues, some of which were of a less sombre character.





FOOL'S PARSLEY.



FOOL'S PARSLEY.

Ethusa Cynapium. Nat. Ord., Umbelliferæ.

THE light and graceful plant which we have figured in the accompanying illustration may be very commonly met with in fields, on rubbish-heaps, and in the garden, and it may readily and at once be distinguished from all other plants more or less similar to it by the three long, slender, leaf-like strips that spring from beneath each little cluster of flowers. Many of the umbel-bearing order of plants have a strong family likeness that tends to make their identification difficult; but such difficulty need never arise in the present case if the peculiarity we have referred to be borne in mind, as it is a characteristic belonging to this plant alone. One great value of the study of botany is that it enables us rightly to ascertain the natures of plants, enabling us to discriminate between those which are useful

to us as food, and those which experience has taught us are harmful. Two plants may grow in the same soil, possibly in the same bed in the garden, and to the casual glance they are so similar, that the undiscriminating think them alike; yet the one may be a valuable herb for medicine and food, and the other only a deleterious and noxious weed. The plant now before us presents us with an admirable illustration of this, for it is sufficiently like the garden parsley for fatal mistakes to have arisen; and though its name implies that foolish people only would make the mistake, the world will probably, school-boards notwithstanding, have to reckon on a certain percentage of such persons, and it becomes very much the interest of those who might suffer by their folly to enlighten them. Dwellers in the country who have to deal with a certain amount of rustic simplicity, which is nevertheless sufficiently opinionated at times, will do well to plant only the curled-leaved parsley in their gardens, as it is then scarcely possible for mistakes to occur. Some of the old herbalists classed the plant as a deadly species of parsley, but for practical purposes we may point out the following distinctions:—The leaves of the true parsley are of a much more yellowish green; besides, the darker bluish green leaves of the *Æthusa* are much more finely divided, and have a gloss on them that we do not find in the pot-herb. Again if we bruise the leaves of the true parsley we at once get the strong but not disagreeable smell with which most of us must be familiar, while the leaves of the fool's parsley have very little smell at all. When the stranger has thrown up its flower-heads, the bearded clusters form an invariable indication of its nature, but even the comparison we have drawn between the leaves alone should

prove a sufficient safeguard. It flowers during July and August. Haller, in his book on Swiss plants, published at Berne in 1768, quotes many authorities to show that this plant, on being eaten, has been productive of the most violent symptoms, ending in some cases with delirium, stupor, and death. Parkinson calls it the fool's hemlock, but it may readily be distinguished from the hemlock, not only by the pendulous floral leaves to which we have already referred, but as being every way smaller, and not having the strong disagreeable smell that characterises the leaves of the hemlock, though Gerarde, we notice, says "the whole plant is of a naughty smell." Such things are, after all, only relative, however, and our assertion holds good, for though Gerarde's remark is fairly true, the hemlock has a much naughtier smell, and the difference in degree is sufficiently striking to distinguish the one plant from the other. In addition to this, the stems of the hemlock are freely spotted over with dull red markings, a peculiarity that we do not find in the fool's parsley: we have, therefore, two distinct characteristics by which the hemlock and the fool's parsley can be distinguished, not only from each other, but from everything else—the spotted stem of the one, the curious floral leaves of the other. Hill, in his British Herbal, calls our plant the small hemlock, and Gerarde gives it the name of the "wilde hemlocke." This latter term at first view seems a great misnomer, for one plant seems as wild as the other, the true hemlock as the fool's parsley; but incidentally we find an interesting little fact concealed in this name. The reference no doubt is this, that in those old days many indigenous plants were cultivated in the gardens of the herbalists and apothecaries, and the hemlock, dangerous as it is, has

medicinal properties that render it valuable, and therefore brought it into cultivation in such collections of medical plants, while the fool's parsley had no virtues assigned to it, and was consequently valueless and left in its wild state. If we can only once get over a feeling of prejudice against the "nasty poisonous thing," we shall have no difficulty in deciding that there is much delicate grace and beauty in the plant. It is a flower that we are always glad to see springing up in our own garden, though we are free to confess that, having first admired it, we with a certain amount of regret carefully eradicate it. We do not find that it is eaten by any animals; even insects and their larva seem to let it alone. We do not remember to have ever seen any jagged and ragged outline to its foliage, suggesting that some caterpillar has been making a meal. Our own live stock we have never tempted with it, as the risk of seeing one's animals succumbing to its effects is greater than we care for, interesting as it might be to record that a small armful killed a cow in an hour and a quarter.





HEDGE-MUSTARD.



HEDGE-MUSTARD.

Sisymbrium officinale. Nat. Ord., Cruciferæ.

NATTRACTIVE as the hedge-mustard must be considered when we compare it with some of the other plants of our series—the sweet-briar, the broom, or the yellow water-lily—its extreme abundance gives it by right a place amongst the most familiar of our familiar wild flowers. By almost every roadside, and on almost every piece of waste ground, we may reasonably expect to find the hedge-mustard, though its name is so far a misnomer that the plant rarely exchanges these bare and dry localities for a place in the fresh verdure of the hedgerow. The plant is an annual, and flowers during June, July, and August. The hedge-mustard is an excellent illustration of the great diversity of appearance which plants may assume at different periods of their growth. Any one unfamiliar with it, and viewing it first when it was just coming into flower, and then again when its flowering branches had elongated, would scarcely

believe that he had seen two stages in the growth of the self-same plant. In our illustration, the flowering state has not long been entered on. Could we have represented that same piece in another month, we should have found the lateral branches thrown boldly out, almost horizontal in direction, but curved upwards at their free extremities and attaining a length of some nine or ten inches. The great number of very thin and widely-spreading flowering stems is a feature that will greatly assist those to whom the plant is unknown in identifying it. The central stem is from one to two feet high, very upright, round in general section, but often more or less furrowed, and, like the lateral stems, very rigid both in appearance and in fact. Any one endeavouring to gather a piece will realise far better for himself than any words of ours can describe how wiry and tough the plant is. The leaves vary greatly according to their position on the plant: the upper ones are long and narrow, deeply cut into lateral segments, or in some cases only notched. These leaves, as may be clearly seen in our illustration, stand boldly out from the stems, and often curve downwards towards the ground. The lower leaves are very much larger and very prominently lobed, the terminal lobe being often conspicuously larger than the others, oblong in the leaves about midway up the stem, and very rounded in the lowest of all. "Rough or hard rugged leaves very much cut in or torne on the edges into many parts, some bigger and some lesser, of a durtie greene colour:"—Parkinson's description of the colour of the foliage is very happy, for partly from the dust of the roadside, and partly from the dull greyish green of the leaves themselves, the general aspect of the foliage as we see the plant growing at the foot of some wall or paling, or

on a roadside rubbish-heap, is certainly "durtie." All the leaves are coarse and rough to the touch, as they are on each side clothed with small hairs; they are arranged in an alternate manner on the stem. The flowers of the hedge-mustard are small and a rather pale yellow, clear and pure in colour, but wanting the golden richness and strength of the celandine or the loosestrife. They blossom "by degrees, so that, continuing long in flower, the stalks will have small round coddes at the bottome, growing upright and close to the stalke, while the toppe flowers yet show themselves," a feature that is clearly seen in our figure, the central stem having at its summit a mass of buds that will be a long time developing into flowers, while the pods, or "coddes," are already beginning to form at the lower part of the stem. The close way, too, in which they stand by the stalk—a point noticed by our old writer—is another very characteristic feature of the growth of the plant. The cruciferous arrangement of the four petals will be observed. As in the great majority of the cruciferæ, the stamens are six in number, two being rather shorter than the others. The pods are small and tapering, downy, and on very short stalks. When they open for the dispersion of the ripened seeds, they do not split all down the sides as in the more familiar example of a pea-pod; but the seeds are on a central membraneous portion, and the outer flaps split away from this at each side, beginning from the bottom, and are finally only adherent at the summit. The seeds are of a dingy yellow colour, "sharp and strong" to the taste.

The generic name, *Sisymbrium*, was bestowed by the ancients upon several plants, and as its literal meaning is "with food," it has been conjectured by more modern

writers that it should most appropriately be applied to plants of the present order, and Linnæus bestowed it on the genus to which our present plant belongs. Those who have been in the habit of taking a little mustard with their beef will see some connection of ideas; but the true mustard is derived from another plant, as we need scarcely remind our readers. The plant has been cultivated as a pot-herb, but its tough stringiness would surely tell against it, and we imagine it would stand little chance in the popular taste against a dish of green peas or asparagus. Birds are very fond of its seeds, and sheep and goats eat it, while cows, pigs, and horses decline to have anything to do with it if they can help it. The specific name refers to the bygone officinal value of the plant in rural practice. Gerarde calls the plant the bank-cress, and in Wales it is the Arfog meddygawl. In the semi-botanical, semi-astrological treatises of the middle ages, the hot and fiery nature of the plant pointed to the evident dominion of Mars over it.





LILY OF THE VALLEY.



LILY OF THE VALLEY.

Convallaria Majalis. Nat. Ord., Liliaceæ.

MOST of our readers probably will be much more familiar with the lily of the valley as a garden flower than as a wild plant; but it is a true native, nevertheless, and may in many places be found in abundance. Our readers will bear in mind that it is a plant of the woods, so that it is only there or in sheltered coppices that there is any reasonable hope of finding it.

We may here, however, advantageously point out that the foliage and general effect of the broad-leaved garlic is very similar to that of the lily of the valley, and as both are found in the same situations at the same period of the year, more than one of our friends have been grievously disappointed by confounding the two. This perhaps is somewhat hard on the garlic, for if our readers will take the trouble to turn to the illustration of it in our

first volume, they will readily agree with us that its pure white clustering starry blossoms are very beautiful in themselves, and have a full claim to be admired for what they are, not scouted for what they fail to be. Londoners will read with interest that in the time of Ray the lily of the valley grew abundantly on Hampstead Heath. In St. Leonard's Forest, near Horsham, in Sussex, where we have seen it in great abundance, the local legend tells us that the patron saint of the district—St. Leonard—waged a mortal combat for many hours with a great and terrible dragon. Though in the end victorious, the saintly dragon-slayer by no means escaped scatheless, and these large masses of snowy blossoms, scattered over the forest, sprang from his blood, shed during that dread encounter. Any one who, in this sceptical age, has doubts, can go and see the flowers for himself.

The lily of the valley is very common in some of our English counties, very local or altogether wanting in others, while in Ireland and Scotland it would appear to be scarcely indigenous. It is sometimes called the May lily, many of the old names of plants, as the pasque-flower, Lent lily, St. John's wort, and numerous others, having reference to the date of flowering. It is in France the *Muguet de mai*, in Germany the *Maiblume*. Its specific name, *Majalis*, or *Maialis*, signifies "that which belongs to May;" hence the old astrological books place the plant under the dominion of Mercury, for Maia, the daughter of Atlas, was the mother of Mercury or Hermes. It is also called convall-lily and lily-constancy by the old herbalists, and in some parts of the country its local name is ladder-to-heaven. Its spotless purity of colour and lowly humility were probably the cause of the bestowal of the last name, a name that has no

doubt descended from mediæval days. The old monkish herbalists often based their nomenclature on associations of a religious character, and united their plant-names with the legends of the saints, or the services of the Church's calendar.

> "To the curious eye
> A little monitor presents her page
> Of choice instruction, with her snowy bells—
> The lily of the vale. She not affects
> The public walk, nor gaze of noonday sun;
> She to no state or dignity aspires,
> But silent and alone puts on her suit,
> And sheds her lasting perfume, but for which
> We had not known there was a thing so sweet
> Hid in the gloomy shade." *

As an ornamental plant few of our species have a greater claim to a place in the garden, for few others can boast of so delicate a beauty, so rich a fragrance. It is most easy of cultivation, requiring only to be placed in a shaded corner.

The generic name, *Convallaria*, is from the Latin word for a valley, and is bestowed in obvious reference to the sheltered woodland dells in which the convall-lily finds a congenial home.

The root of the lily of the valley is fibrous and perennial, extending a little below the surface of the ground, and reaching to a considerable distance. The leaves grow in pairs, their stalks sheathing one within the other. One of these leaves is often larger than the other, and both are very simple in form, and deeply ribbed. The flower-stalk springs from the root, and is about equal in length to the leaves. It bears a loose raceme of drooping, bell-shaped flowers of a pure white; hence, in Beaumont and Fletcher's

* Hurdis.

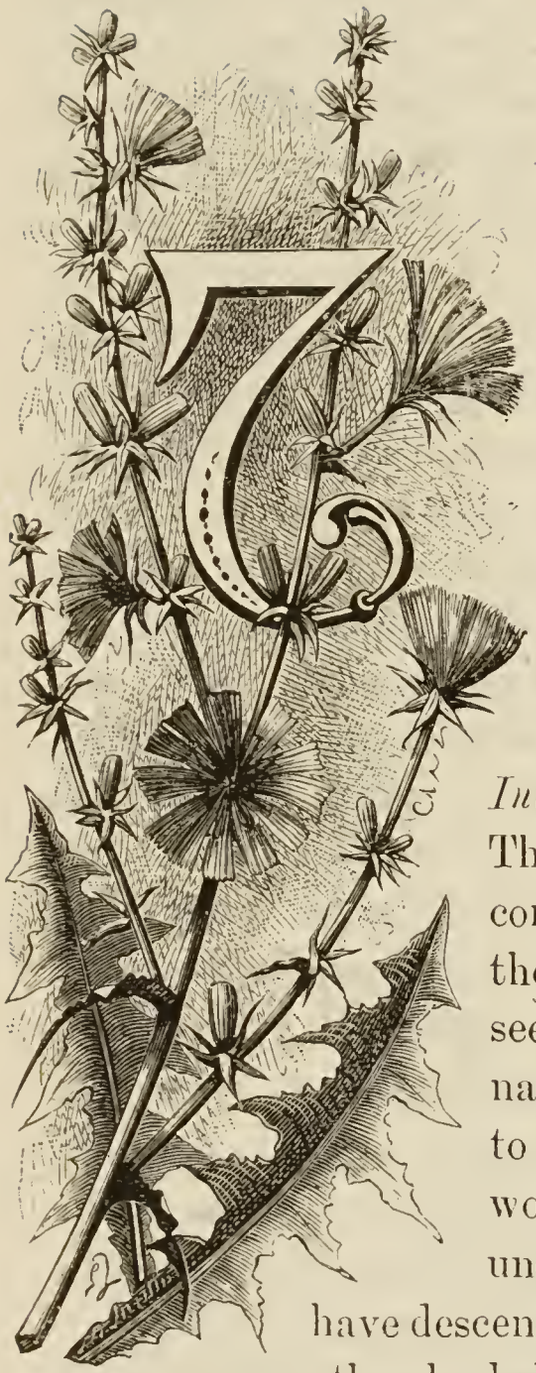
sonnet on the Spring, we find them referred to as "lilies, whiter than the snow."

In the wild state its blossoms are rarely succeeded by the fruit, but it produces it readily under cultivation. This fruit is a rather large berry, something in size between a fine black-currant and a small cherry, and of a brilliant red. "They write that the water of the flowers of Lyllie conuall, distilled with good strong wine, and drunken in the quantitie of a sponefull, restoreth speech to them that are fallen into the apoplexie, and that it is good for them that have the paulsie and gout. The same water, as they say, does strengthen the memorie, and restoreth it again to his naturall vigor when through sickness it is diminished." Another old writer tells us to take the flowers and put them in a glass, and place it in an ant-hill. At the end of a month "you shall find a liquor that appeaseth the paine and grief of the gout, being outwardly applied, which is commended to be most excellent."





SUCCORY.



THE SUCCORY.

Cichorium Intybus. Nat. Ord., Compositæ.

THE succory, or chicory, is a plant belonging to the same great natural group as the dandelion, the ox-eye, the corn sow-thistle, and the nipplewort. The general form of the flower, it will readily be noticed, is very similar in all of these. It is the *Cichorium Intybus* of botanical nomenclature. Though the plant is perhaps more commonly known as the succory than the chicory, we never remember to have seen any explanation of this common name; we would therefore venture to suggest a derivation—the Latin word *succurrere*, signifying to run under. Many of our common names have descended to us either from the monks or other herbalists of the Middle Ages; the terms used, therefore, are generally either corruptions of the old Latin names or terms based on some old English word, and in either case the allusion is often either to the actual properties of the plant or else to the peculiarity of growth

in some organ of the plant that is of most economic or medicinal value. In the case of the present plant we could well imagine that the long tapering root, a feature conspicuous in itself, and a part of the plant of considerable value, would influence the choice of a name for the herb. The other name, chicory, is, under one modification or another, of widespread range. We see this in its Latin name *cichorium;* in France it is *chicorée;* in Spain, *achicoria;* in Portugal, *chicoria;* in Italy, *cicorea;* in Germany, *chicorie;* in Holland, *cichorei;* in Sweden, *cikorie;* in Russia, *tsikorei;* in Denmark, *cicorie.* These names are curious not only for their similarity but also for their dissimilarity—all are so very much alike in general character, and yet no two of them are the same. It has been suggested that the root of all these names will be found in the Arabic word for the plant, *chikouryeh;* and this may very possibly be the case, as at one time the Arabian physicians and writers were men of great repute, and through the conquest of European Turkey and the occupation of Granada their works exercised a far more than merely local influence. The specific name, *Intybus,* is a modification of another Eastern name for the plant, *hendibeh;* and the endive of the garden, the *C. endivia* of science, an allied but foreign species, derives both its common and specific names from the same word. The endive is a plant of Southern Asia. The endive and the succory are the only two species in the genus *Cichorium.*

The succory is a perennial. The stems attain to a height of some three feet or so. The lateral branches are numerous and spreading; they are given off at a very considerable angle from the central stem, so that the general effect of the plant, though spreading, is not rich and full, since the

branches stretch out to some distance in each direction, and are but sparsely clothed with leaves of any considerable size. The stems, however, bear leaves and flower-heads in great profusion; the spaces of clear stems are very small. The general aspect of the plant is somewhat stiff and angular. The lower leaves of the plant are large and spreading, thickly covered with hairs, and something like the form of the dandelion leaf, except that the numerous lateral segments, or lobes, are, in general direction, about at a right angle with the central stem instead of pointing downwards, as is often the case in the similar portions of the leaf of the dandelion. The terminal piece is large in proportion to the others, and all the segments, terminal and lateral, are coarsely serrated. The upper leaves are very much smaller, much less divided, and are what is termed botanically amplexicaul, a term used when the base of the leaf clasps the stem and partially surrounds it. The flower-heads are very numerous, nestling in the axils of the leaves, and ordinarily in a little cluster of two or three. The flowers are rather large, very fully expanded, and of a delicate tint of blue. The involucres from which they spring have two rings of bracts—an inner one composed of eight parts, and a smaller, outer, and more spreading ring of five parts. The involucre is the part that in a composite flower corresponds to the calyx in flowers of simpler construction. It is composed of a ring of leaf-like forms termed bracts, that, as in the sepals of the ordinary calyx, protect the inner and more delicate parts from injury.

The succory is not uncommonly met with in many parts of England and Ireland, though it is by no means a common plant in Scotland. It is more especially common on the gravel or chalk, and in places where the soil is of a

light and sandy nature. It may in such localities be freely met with on waste land, open borders of fields, and perhaps more commonly than anywhere else, by the roadside, a feature that will probably have brought it under the notice of many of our readers who have little time or opportunity to wander far into the wilder haunts of many of our plants. We have in Surrey seen the succory in lavish abundance on a road that commanded a full view of St. Paul's Cathedral, only some six or seven miles distant.

The leaves of the succory when blanched form a very pleasant salad, and are largely used as such on the Continent. The roots, when dried and ground, furnish the chicory of commerce. It is in Belgium and Germany a rather important field crop, and most of the supply for the English market is derived from thence. The plant is also largely cultivated abroad as fodder for cattle and sheep.





DEVIL'S-BIT SCABIOUS.



DEVIL'S-BIT SCABIOUS.

Scabiosa succisa. Nat. Ord., Dipsacaceæ.

THE devil's-bit scabious is one of the common plants of our meadows and pastures, and as it comes at a time when there are few other blossoms to distract our attention from it, it can scarcely fail to be noticed. Most of the other meadow flowers appear and pass away at an earlier period of the year; the delicate yellow cowslips, the golden buttercups and dandelions, the great ox-eye daisies, have all come and gone before the rich purple globes of blossom of the scabious, or the lighter purple bells of the harebell make their appearance. The peculiarly deep colour of the flowers of the present species of scabious is in itself a feature that attracts attention, as we have few other blossoms of that strength of tint. There is a second common species of scabious, also to be found amongst our illustrations, that has larger flowers, and these are of a delicate

lilac colour. Both species flower in the autumn, and will be found in very similar situations, though the devil's-bit, as far as our experience goes, will ordinarily be found in the open meadow-ground, or on the breezy upland, while the other species is more a plant of the hedgerows.

The root of the species now illustrated is, when fully grown, nearly the thickness of one's finger, and ends in so abrupt a way as almost to suggest the idea that it had been snapped or bitten off, a peculiarity that has given it a place in monkish legend, as we shall presently see. From this short and thick root-stock proceed many long white fibrous roots. In the first year of the plant's existence, the root is very like a diminutive carrot or radish in shape. It then becomes woody and dies away, the upper part excepted; as it decays and falls away, the gnawed or broken look results. The portion left throws out numerous lateral roots, and these compensate for the portion that has perished. The stalks are from a foot to a foot and a half high, nearly or quite upright, and very slightly branching. They are often more or less clothed with rough hairs, giving them a somewhat downy surface. The leaves vary in form, according to their position on the plant, but all are clothed with coarse hairs, and have a rough feeling to the touch. The leaves at the base of the plant are oval or rounded, running a little way down the short stems on which they are borne. They are what is botanically termed entire—or, in other words, their outline is a simple continuous line, without any of the notching or toothing that is so familiar a feature to us in many kinds of foliage. The upper leaves are few in number, without stalks, much longer in proportion to their breadth, and often sparingly toothed or lobed. They grow in pairs on the stem, and have their bases

adherent together. The heads of flowers are almost globular; they are borne on long stalks that rise from the axils of the upper leaves. On a closer examination it will be found that these flower-heads are composed of numerous florets, all very much the same size, the outer and lower ones being perhaps a little larger, but not by any means in so marked a degree as we find in the inflorescence of many flowers built up of a mass of florets. The corolla is all in one piece, like a convolvulus, but divided into four segments or lobes, three being about equal in size, but the fourth, the upper one, a little larger. The four stamens with which each flower is provided are a very conspicuous feature, the anthers being large, and borne upon filaments that are almost as long again as the corolla. The plant is a perennial, and flowers during July, August, September, and October.

To entomologists the plant will have a certain interest, as being the food of the larvæ of some few of our butterflies and moths; of these we need here only mention two. The first of these is the larva of the beautiful Fritillary butterfly, known to the men of science as *Melitæa Artemis*. The perfect insect is a rich orange-red, spotted and chequered with black, and the caterpillar or larva is black, with a lateral band of white spots. It is found on the scabious and plantain during April. The second species is the moth known as *Eupithecia satyrata*. The larva will be found on scabious during June. It is a whitish-grey in colour, a row of rather dull-red triangular spots being its only adornment.

The plant derives its common name from an old belief that "the divell," to quote an old writer, "for the envie that he beareth to mankind, bit it off at the roôt, because it would else be good for many uses." This legend seems to have been very widely spread abroad, for the plant bears only

this one name, and that, too, not only in England, but on the Continent. With the monks it was the *Morsus diaboli,* while in Germany it is the *Teufels abbiss,* and in France the *Morsure du diable.* The Satanic motive influencing the destruction is accounted for in two different directions, that are rather contradictory. In the "Ortus Sanitatis" Oribasius says that "with this root the devil practised such power that the Mother of God, out of compassion for man, took from him the means to do so with it any more, and in the great vexation that he had that the power was gone from him he bit it off, so that it grows no more to this day." Here it will be seen that the plant was accredited with evil powers; but another version ascribes an entirely different origin to the diabolic malevolence. Gerarde, no believer in the story evidently, says that "old fantasticke charmers report that the divell did bite it for enuie, because it is an herbe that hath so many good vertues, and so beneficiall to mankinde." Parkinson quotes the legend in the same way, but adds, "which is so grosse and senselesse a relation that I merveile at the former times' stupidity to receive as true such a fiction."





KNOT-GRASS.



KNOT-GRASS.

Polygonum aviculare. Nat. Ord., Polygonaceæ.

SOME of our readers may well be excused if they imagine that a mistake has been made in describing the plant figured before us, for whatever else it may be, it cannot certainly be considered a grass: it is, in fact, not grass, if the dignity of our subject will allow of such verbal trifling. However, the plant really bears the name we have ascribed to it; and the explanation of the anomaly may be found in the fact that the wisdom of our ancestors manifested itself, amongst other ways, in calling many plants, such as the present and the clover, grasses, if they were eaten by cattle, or could be used as fodder-plants, though they might bear no similitude to the true grasses, and would have no claim in any way really to rank amongst them.

The knot-grass is one of our most common plants, especially on a sandy or gravelly soil; we find it on banks, by the roadside, in corn-fields, and in fact almost everywhere. Cattle

in general are fond of it, and pigs in particular eat it with great avidity, hence one of its old names is swine's grass. In the "Grete Herball" we see it is called swynel-grass. The "Grete Herball" was published in England in the year 1516, and had so great a measure of popularity that it passed through several editions. It was printed in the old black letter, and illustrated with particularly bald wood-cuts, which in some cases bore no resemblance to anything whatever, and in many the same illustration had to do duty for more than one plant. Our readers will readily see the inconvenience of this to those who would refer to the book, if they will imagine that we, for the saving of a little trouble and expense, had not troubled to draw the knot-grass at all, but had quietly described it, and slipped in an old plate of the primrose instead. Though the botanical merits of the work are naturally not great, botanical science being then practically unknown, it is full of interest as being, with one exception, the very inferior herbal of Macer, the first book, and for a long time, the only book, on the subject in the vulgar tongue.

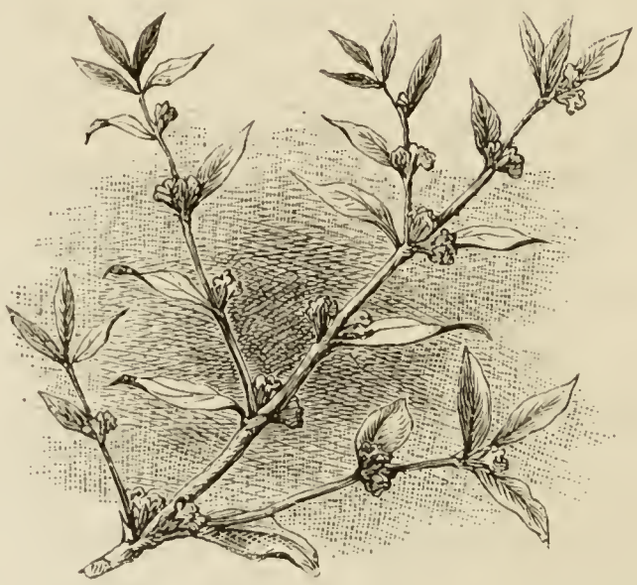
When a plant of knot-grass grows singly in a favourable soil, and clear of other vegetation, it will often cover a circle of a yard or more in diameter, the stems being almost prostrate on the ground, and the leaves broad and large; but when it has to grow thickly together, and share the accommodation with other plants, the stalks become more upright, and all the parts are frequently smaller. Our specimen is a very fairly typical one. In its natural growth it was evidently in an upright position, and we see this at once on looking at the leaves: had it come from a trailing plant all the leaves would have turned one way—the way in which, when the plant was growing, all had turned

upward to the light. It is a very variable species: its stems are sometimes long and delicate-looking, and the leaves sparsely developed, while in others they branch freely, and are densely crowded with foliage. The plant is an annual, and begins flowering in May; it may be found in blossom any time between then and September or October.

To pass from the general to the particular, we may point out that the root is very fibrous, and takes a strong hold of the earth, so that in hard ground it is with great difficulty eradicated, generally breaking off at the level of the ground when the attempt is made. The stems are numerous, and, as we have already indicated, either trailing or upright in their growth, tough and wiry, and, like all the polygonums, much jointed. When gathered, the stem generally snaps at one of the joints. The leaves vary a good deal in form, for, though they all have the general oval character our figure indicates, in some well-nourished plants they are almost as broad as long, while in the starvelings they become very attenuated. The variation is chiefly in the breadth; they rarely increase much in length beyond what we see in the illustration. They are a bluish green in tint and smooth to the touch. The leaves of this plant, as in all the other species in the genus, are arranged alternately on the stems, and each springs from a membranous, whitish, and sheathing stipule that surrounds the joint, its upper edge being irregularly notched or cut. The flowers are borne in small clusters in the axils of most of the leaves; though small in themselves, they are so numerous that in the aggregate they make a fair show of blossom. The perianth is divided into five segments, varying in colour from a light to a deep pink,

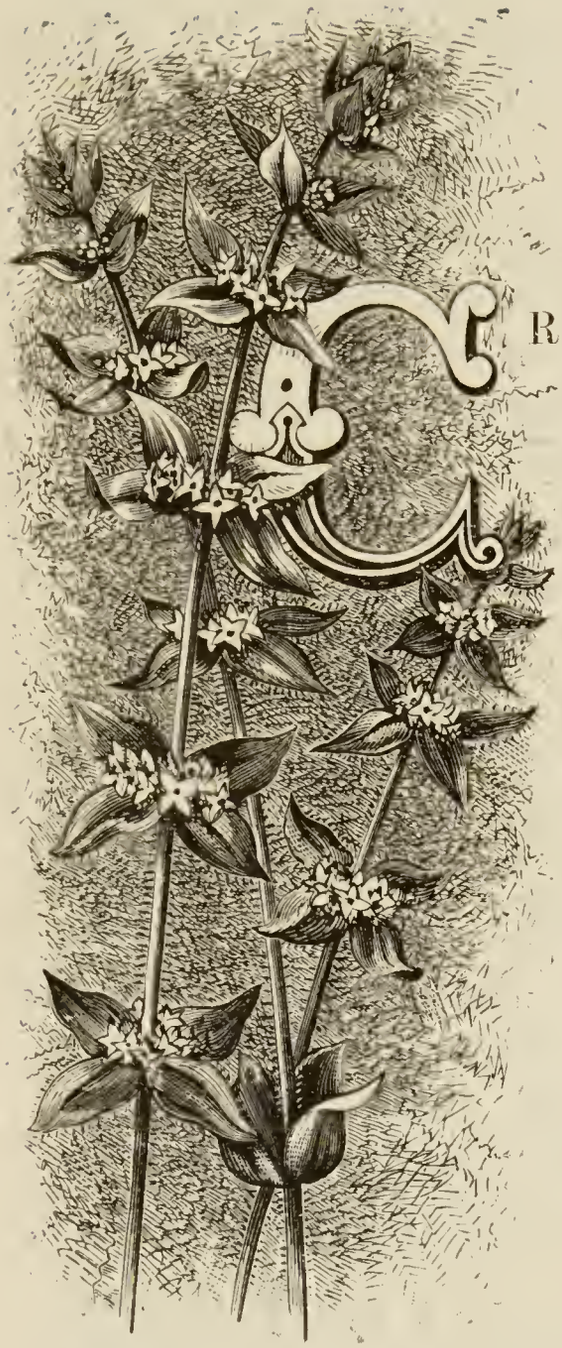
or, more rarely, white. The stamens are eight in number, their yellow anthers being very visible on a closer examination of the flower, and the style is cleft into three parts. The seeds are blackish and three-angled.

The generic name *Polygonum* is compounded of two Greek words signifying many joints, and the name is certainly a very appropriate one, while the specific title *aviculare* is from the Latin *aviculus*, which is, in turn a diminutive of *avis*, a bird. Great numbers of our smaller birds feed on its seeds, and give a full appropriateness to its title. It is in some old herbals and in provincial parlance called bird's-tongue, or sparrow-tongue, but these names arose from the shape of its little pointed leaves; and it is curious that one of its modern Italian names is similar in meaning to the second of the two we have named. Pink-weed is another old name for the plant that evidently arises from the long lines of delicately-tinted flower-clusters, and ninety-knot no less clearly refers to its numerous joints.





CROSSWORT.



CROSS-WORT.

Galium cruciatum. Nat. Ord., Rubiaceæ.

CROSS-WORT, graceful as it is when examined, does not appeal particularly to the eye when seen growing, for all the forms are so minute and delicate that a mass of it amidst the vegetation only tells as a point of yellowish green colour. Yet the plant is one that we always welcome, for it is one more indication that the winter is over and gone, and that the promise of the spring is maturing into the wealth of summer. The cross-wort is very commonly met with on hedge-banks where it can be somewhat in the shade, in copses, woods, and such like spots, and its blossoms may be found in all their delicacy and frailty from April to June. It is rather curious that though the plant is widely distributed, and in many places abundant in England, it is less so in Scotland, while in Ireland it appears to be wholly unknown.

The root-stock of the cross-wort is perennial, and the flowering-stems that ascend each spring from it stand boldly erect to a height of from six inches to over a foot, a good deal depending upon the thickness of the surrounding vegetation amidst which the plant has to fight its way upward to the air and light. The leaves are arranged at somewhat distant intervals on the stems, in rings of four. The leaves are ovate in shape, and, like the stems, thickly covered with hairs. Each set of leaves is immediately over the ring beneath it; in most other plants the following ring just alternates in direction, and fills in the interval, so that the rings if looked down upon show eight leaves, four above, and a second four coming below and filling up the intermediate spaces; but in the cross-wort all the leaves take the same direction, and if one leaf points due north, all the corresponding leaves on all the rings would point due north too. The numerous flowers are found in crowded clusters in the axils of the leaves, ring after ring of leaves on the stem having nestling within it these flower-clusters. Almost all the flowers in each ring are stamen-bearing only, and have a conspicuously four-cleft corolla; the few fertile flowers are often five-cleft. After flowering-time, and when the blossoms have faded away, the little stems on which they were severally borne bend downwards, and so remain until the plant decays.

The cross-wort is one of the numerous indigenous species of bedstraw, but the markedly cruciform arrangement of both foliage and petals has earned it its special distinctive name. It is in some old herbals called the *crusialis*, and in mediæval French it was the *croise*. In Germany it has the same name as its near relative the woodruff, a plant we shall next figure and describe, but to distinguish it it has

the very appropriate prefix of golden. A common old English name for the plant is the May-wort, a term of the same nature as Lent-lily, pasque-flower, and fair maids of February, and descriptive of the season when the plant may be found in flower. Other old names for it are the mug-wort, mugget, or golden mugwert. The second and third appear like corruptions of the first, but it would appear that they have good claim to an independent existence. A plant was once called moth-wort, and moghe is the old English word for moth; but the plant that bore this name was the wormwood, and it is difficult to see how the corrupted form of mug-wort can have been transferred to the cross-wort. Mugget and mugwert are corruptions of the French *muguet*, a somewhat depreciatory word, signifying a fop, or dandy. Charming as our plant may be, it assumes no offensive airs on the strength of it, and we, on the whole, consider that it is hardly used by such an association of ideas. The same name is in France applied to the graceful lily of the valley. The generic name *Galium* is derived from the Greek word for milk, some of the plants of the genus having been used formerly by the dairy-maid to curdle milk with. Hence another old name for the genus was cheese-rennet, and in France *caille-lait*. The specific name is from the Latin word for a cross. Parkinson calls the plant the *Cruciata vulgaris*, while with Bauhin it is *Cruciata hirsuta*, the hairy nature of the plant making this latter name a happily-chosen one. We have already seen that its familiar name in Germany coincides with that of the woodruff or *Asperula odorata*, plus the distinctive addition of the adjective golden, and in the writings of Lugdunensis we find this same idea reproduced, as we may say, in fac-simile, for he calls the cross-wort the *Asperula*

aurea, the golden woodruff. The madder has whorled leaves, and is sometimes in the olden herbals called the *Rubia cruciata,* or cross-wort madder, but the true cross-wort is the plant we here figure. To this plant the name may most appropriately be ascribed, for its leaves always follow the cruciform arrangement, while the madder varies from four to six leaves in each whorl or ring. Numerous species of the genus *Galium* are indigenous to Britain, one of the commonest, and at the same time most attractive, being the yellow bedstraw, *G. verum,* a plant so slender and graceful in growth that it was by the olden botanists called the ladies' bedstraw. This species and the cross-wort are the only two bedstraws with yellow flowers; all the other species have white blossoms. A strong family likeness runs through them all, owing to the uniformity of colour in their flowers, and to the fact that in all the species the leaves are arranged in rings at intervals on the stems.

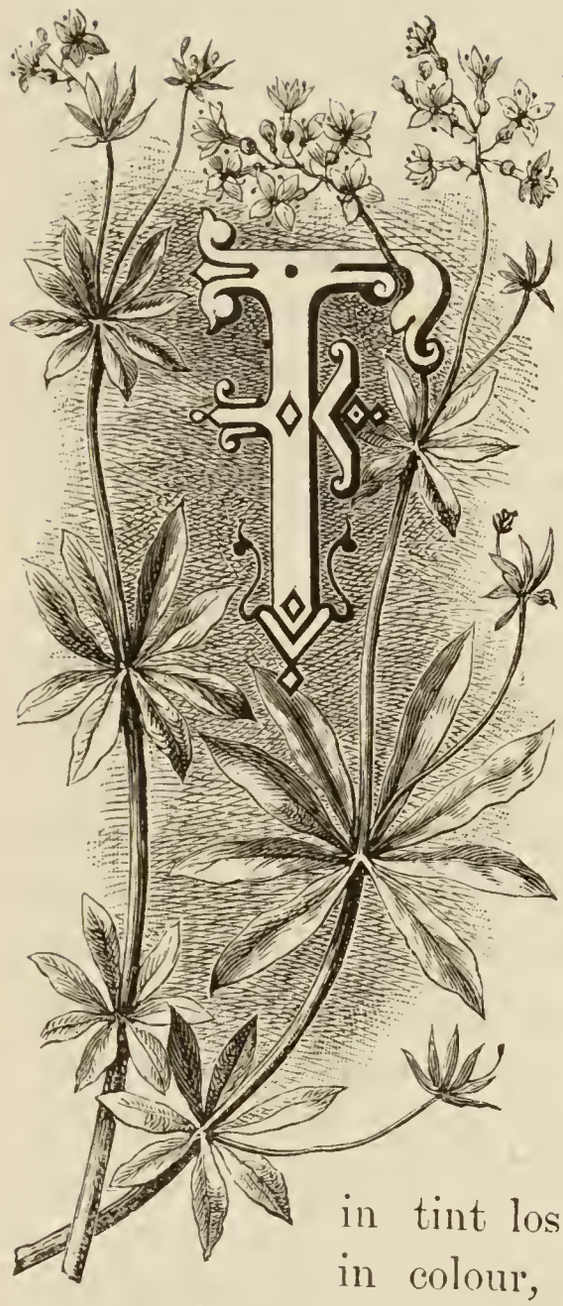




WOODRUFF

WOODRUFF.

Asperula odorata. Nat. Ord., Rubiaceæ.



FEW floral displays are more attractive in the early summer than a large mass of the woodruff in flower. Its rings of leaves cover the ground with a dense mass of living glowing green, and from this rise in plentiful abundance the flower-stalks bearing above this groundwork of tender verdure the thousands of pure white blossoms. It is one of the misfortunes of illustrations that those flowers which are the most pure and delicate in tint lose most by their representation in colour, and those who would see the ox-eye daisy to perfection, realise the delicacy of the lilac of the meadow saffron, or the intense white of the woodruff, must turn to the great book of Nature, and see them amidst their natural surroundings. The beauty of many of our flowers, too, in nature is increased by their aggregation; we gaze not on one, but on

hundreds of blossoms. A primrose anywhere is a thing of beauty; but a hedge-bank in spring one mass of its blossoms is still more beautiful. The hyacinth has a delicate grace and richness of colour that makes even a single specimen a delight; but he who would see wild hyacinths at their best must wander at spring-time into the woods, and find himself in a purple sea of flowers stretching beneath the trees as far as eye can reach.

The woodruff is plentiful in most woods throughout the country, and is conspicuous at any time owing to the form and density of its foliage; but those who would seek it in flower must wend their way to its woodland home in May or June. A large bunch of it should be brought home; it will last for some time in water; but when it begins to show signs of fading, instead of throwing it aside, it should be tied into a bundle and dried, when it will for months give forth a delicious fragrance. Placed between the leaves of a book, its fragrance remains intact for many years, and in some parts of the country it is put away in drawers amongst the clothes, partly because, like lavender, its odour is appreciated, and partly from an idea that it keeps away the moths. It is also in some rural districts made into a tea, but whether it is drunk on its own merits or as a medicine we are unable to say.

Gerarde, we see, suggests that the woodruff should be made up into garlands and "hanged up in houses in the heat of summer, as it doth very well attemper the aire and coole and make fresh the place, to the delight and comfort of such as are therein;" and he farther suggests that it should be put into wine "to make a man merry, and to be good for the heart and

liver." He also commends it as a "vulnerarie herbe," to be applied to cuts and wounds. Other old writers give it all the credit that Gerarde does, and much more. One, we see, commends it as "good against the plague, both to defend the heart and vitall spirits from infection, and to expell the noysome vapours that are received," and another advises its use "in epelepsies and palsies." Every old writer could furnish illustrations, more or less numerous, of its value, and we can therefore only wonder how our ancestors ever came to be put beneath the lichened stones that now form their memorial.

The root of the woodruff is perennial, and puts forth many creeping subterranean stems, which in turn send down into the earth numerous fibres at short intervals along their course, and freely throw up the flowering-stems. Dodonæus says: "In this countrie they plant it in all gardens, and it loveth darke shadowie places, and deliteth to be neare old moyst walles. Woodrowe floureth in May, and then is the smell most delectable." We have ourselves in the shade of the north side of our house a large bed of it that never needs the least attention, and is always a beautiful object. The stems rise to a height of some six or eight inches, are four-cornered in section, and smooth to the touch. The leaves grow in rings round the stem, generally eight in number in each whorl, and above these the stem branches slightly and bears its terminal masses of white blossom. The flowers are cross-shaped, and shatter very readily, and these are succeeded by little globular burr-like seed-bearers, each containing a single large seed.

Amongst old names for it we find *cordialis* and *stellaria* —the first, of course, from its supposed efficacy in heart-

disease, and the second from its star-like foliage and flowers; but ordinarily its names are more or less like that by which we have described it. We find wood-rowell, wood-roofe, wood-reeve, and several others of like character.

In Anglo-Saxon it is *woodderowffe*. Wood-rowell refers to the rings of leaves that suggest in their form and arrangement the rowel of a spur, while our ordinary word woodruff would appear to find a resemblance in the foliage to the mediæval ruff, of which the portraits of Queen Elizabeth always give so noteworthy an illustration. These derivations, interesting as they are, are probably after-thoughts; for the plant had its Anglo-Saxon name bestowed upon it long before ruffs were worn or the word rowel, from the French *rouelle*, a little wheel, was in use. Dr. Bosworth gives *row* as the Anglo-Saxon for sweet, and there can be but little doubt that the literal meaning of the word is the woodsweet.





FUMITORY.



FUMITORY.

Fumaria officinalis. Nat. Ord., Fumariaceæ.

AN old writer has said: "There be divers herbes comprehended under the title of Fumitorie: some wilde, and others of the garden." The common fumitory is an annual; it may be found almost everywhere on dry land, on high-lying fields, and by the roadside, though it seems to prefer fields under cultivation; it often appears in the garden, and, in such situations, it may be found in flower during the whole of the summer and the greater part of the autumn, if it be sufficiently fortunate to escape the weed-cleansing hoe. Small and insignificant as the plant appears, it has won a place for itself in our literature, for we find it referred to by Clare, Shakespeare, and other less well-known writers. In the middle ages the fumitory was boiled in milk and used as a cosmetic by

the belle of the village and her rivals. The fumitory may be considered as a sign of bad husbandry, and it is in this sense that the plant is introduced by Shakespeare. To enforce the idea of the sorrowful plight of King Lear, he is represented by our great poet as

> "Crowned with rank fumitor and furrow weeds,
> With harlocks, hemlock, nettles, cuckoo-flowers,
> Darnel, and all the idle weeds that grow
> In our sustaining corn."

The fumitory, nuisance as it may be in the garden or the fields, is a particularly easy plant to pull up, as its long, slender root may be drawn out on the most gentle handling. We confess that we have great doubts whether we ourselves are quite the sort of person who ought to have a garden at all, for our gardener's assiduity in weeding out all these wild growths only finds faint echo in our own mind; and, on the whole, we prefer the fumitory to many of the substitutes for which it is ruthlessly eradicated. We were just in time to rescue the piece we have figured from the pitiless hoe; and when we carefully carried it indoors for drawing purposes, the gardener's look was more eloquent than his language probably might have been. He thought we were siding with the enemy, evidently.

The stems of the fumitory vary in height from about six inches to eighteen, enlarged at the joints, and spreading a good deal. In some plants the stems stand boldly erect in their own strength, but in others the plant assumes a weak and trailing appearance. The stems are in any case very delicate and fragile-looking. The leaves are arranged alternately on the stem; they are very much subdivided, the leaflets being ordinarily cut into three conspicuous lobes. This feature may be very well seen in our figure.

The leaves are what is termed twice-pinnate. In a pinnate leaf several lateral leaflets are given off on either side of the central leaf-stem, and when these lateral members are in like manner cut up into subordinate leaflets, the form is bi-pinnate, or doubly feathered. The leaflets vary greatly in appearance; in some plants they are long and narrow, and in others flat and broad, and all the foliage is of a pale bluish-green tint. The flowers are arranged in racemes, the flower-bearing stems being either terminal or opposite the leaves. Before development the buds are closely packed together, but as the flowers open the stem elongates, causing a considerable interval between the blossoms. This early crowding and subsequent elongation may be noticed in our illustration. The sepals, two in number, are very small. The four petals of which the quaint-looking corolla is composed are arranged in two pairs, though they are all more or less united; and the curious prolongation or spur of the flower must be duly noted. The stamens, six in number, are arranged in two bundles of three each. The form of the seed-vessel may be seen in our figure; when we open the small globular fruits, we find that each contains a single seed. Some of the old herbalists compare the flowers to little birds, and one of the German names for the plant is the *Taubenkropp*, tauben being the Teuton for doves; while a provincial English name for the fumitory is *wax-dolls*. In Wales it is the *Mwg y ddaear cyffredin*, and in Ireland the *Cuman Scarraigh*. There is a curious uniformity in the meaning of many of its names, and yet when we endeavour to analyse the significance that runs through them all we find a wide divergence. The generic name, Fumaria, is derived from the Latin word *fumus*,

smoke; in many parts of the country the plant is called colloquially earth-smoke; and in France it is the *fume-de-terre*, and in Germany the *Erdranch*, names of like significance. The English word fumitory follows the same idea; it may more readily be detected in its older guise, the fumiterrie. When, however, we would seek the common idea involved in the various names we have given, our difficulties commence. In the "Ortus Sanitatis," published in the year 1485, we find a belief that the plant was produced from the vapour rising from the earth, that it was not propagated by seeds, as other plants, but was a veritable child of the mist. Pliny, who recommends the use of the plant as an eye-wash, tells us that on its first application to the eyes it causes them to smart and water as smoke does. Another writer tells us that the plant is called the fumitory from its smoke-like stem; while others, again, point to the tender spreading mass of grey-green leaves, and ask us to see in them a similitude to a whiff of passing vapour on the earth—a fumiterrie, or earth-born cloud. All ends, alas! as it began, in smoke and misty ambiguity.





SMALL WILLOW-HERB.



SMALL WILLOW-HERB.

Epilobium montanum. Nat. Ord., Onagraceæ.

WE have already included in our series one species of Epilobium, and a much finer plant than the present; the small willow-herb, however, if not so striking a plant as the great willow-herb, the *E. hirsutum*, is quite as familiar a wild flower, and, therefore, claims full recognition at our hands. It has a grace and lightness, too, of its own, that makes it no unfit companion for the large number of beautiful plants with which it here finds itself associated—the silver-starred anemone, the ruddy orpine, the curious milk-thistle, the hardy thrift, the golden stone-crop, the delicate bladder-campion. The small willow-herb is very abundant nearly everywhere in Britain, and, in fact, seems to be almost cosmopolitan. It should be looked for—or rather, we will say, it may be found, for a plant so common needs little searching after—on waste or cultivated ground, the roadside or the garden, often on the thatch of the cottage roof, on old stone walls, or in woods. It is a perennial, and flowers during June and July. Some of the old cottage roofs

become quite gay as the thatch grows old and somewhat furrowed, as there thus becomes a holding-ground and the necessary dampness for the propagation of various seeds that find their way there. How they ever manage to do it is a puzzle. The seeds of the willow-herb, being light and feathery, will find their way anywhere, like those of the thistles, hawk-weeds, and groundsel; but we remember this summer often noticing one particular roof on which, besides the plants we have mentioned, and grasses, and many other things, there were handfuls of poppies and several sturdy wheat-plants. Possibly, an ear or two of wheat may have been retained in the straw after thatching, though in that case we should imagine they would have thrown up their delicate green blades the following season, and would not have waited till lapse of years had made re-thatching one of the immediate questions of the future. And how, in any case, did the poppy-seeds find their way there? The same thing often strikes one in the case of the grand flower-borders that often fringe the summits of the walls of old ruined abbeys and other buildings. In a place that seems inaccessible, and where no foothold seems possible, we may see the wild rose throwing out branches a couple of yards long, and elders with stems as thick as a man's wrist, to say nothing of ox-eye daisies, stone-crop, corn-marigolds, poppies, ivy-leaved toad-flax, snapdragon, wall-flowers, and many another gay adornment of the old flint walls, all thriving where the nourishment is of the scantiest, the drought the most searching, the wind the keenest.

The small willow-herb is a great pest when found in cultivated ground, and when it is once fairly established in a garden, it seems to be impossible to eradicate it. It has two

features that enable it to command the situation—a long and very fibrous root, of which the smallest portions left in the ground possess a wonderful vitality; and an apparently unlimited supply of seeds, all duly provided, like those of the dandelion, with the means of wafting themselves away from the parent plant and scattering themselves far and wide.

The stem of the willow-herb is upright, and ascends to a height of some two feet, or even a little more if amongst other plants; it is round in section, very slightly downy, often quite simple in character, but occasionally branching a little near the summit. When it branches at all, these branches are in pairs. When the plant grows amongst others in the shelter of a garden, its stems and leaves are alike green; but in more exposed situations the stems are often a deep crimson in tint, and the lower leaves are various tints of brown, crimson, and yellow, gradually passing into the bluish-green of the upper leaves. The leaves are generally in pairs, but we may occasionally find a plant in which they are arranged in threes or fours—a variation to which most of the species of willow-herb seem subject. Most of the leaves are on short stalks, but some of the upper ones will be found almost or entirely stalkless. They are of the form botanically termed ovate, a good deal pointed at their extremities, and having their margins finely notched, like the teeth of a saw. The lines of the veining are rather prominent, and the upper surface of the leaf is often slightly hairy or downy. The calyx crowning the long tapering ovary is deeply cut into four lobes. The corolla is composed of four heart-shaped petals, deeply notched, of a pale purplish-pink tint, and, when fully expanded, spreading widely outward. The stamens are

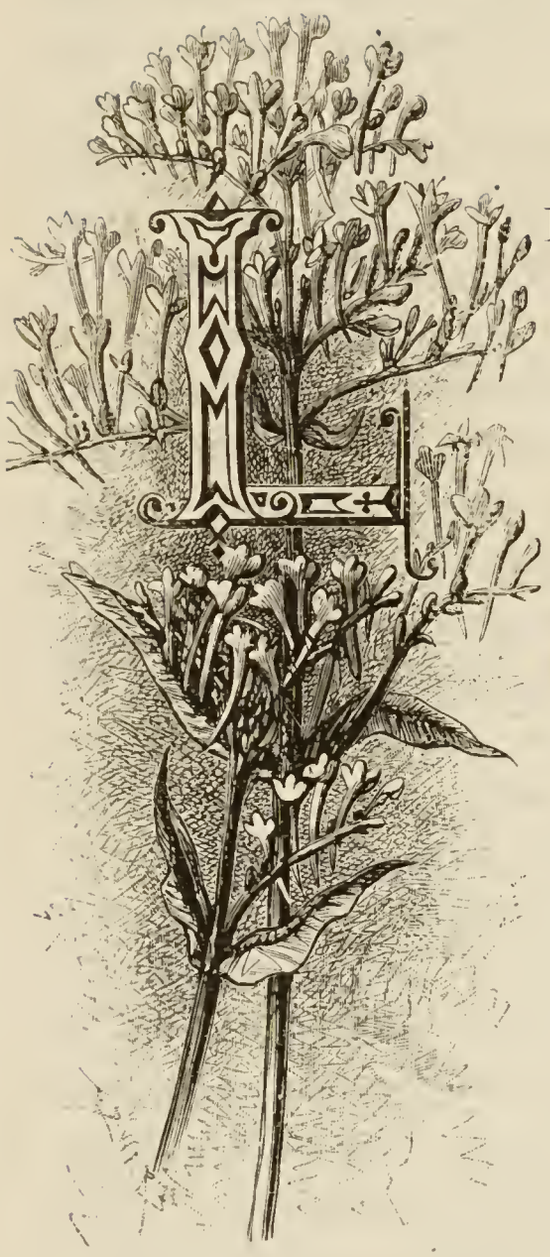
eight in number, four being considerably longer than the other four; the stigma four-cleft; the lobes spreading, and forming a cross-like form at the summit of the style; the capsular fruit long and slender, splitting open when ripe, and disclosing the numerous small and downy seeds. As the segments of the fruit dry and curl back, the seeds are liberated, and, by means of the tuft of hairs with which they are each terminated, they are dispersed by the wind.

The generic name, *Epilobium*, is a very happy one; it is derived from two Greek words, signifying *upon* and *pod*, from the growth of the flowers on the summits of the pod-like ovaries. *Montanum* is Latin, and signifies pertaining to mountains, a not very appropriate designation for a plant that is abundant almost everywhere. The English names, willow-herb and willow-weed, were suggested evidently by the shape of the leaves, though the leaves of the various species of willow, while partaking of much of the character of the plant we figure, are more slender in proportion to their breadth.





RED VALERIAN.



RED VALERIAN.

Centranthus ruber.
Nat. Ord., Valerianaceæ.

LIKE the ivy-leaved toad-flax, the present plant is not one of our indigenous species, but, like that again, it has got so far established at home with us that it fitly finds a place in our series. It resembles, too, the ivy-leaved toad-flax in another important particular: both are naturally plants of the countries bordering the Mediterranean Sea. It is probable that the red valerian was originally introduced on account of its beauty, as we find it mentioned by many of the older writers as a garden flower. Thus Gerarde, writing A.D. 1633, says, "It groweth plentifully in my garden, being a great ornament to the same;" and Parkinson, A.D. 1640, says, "In our gardens chiefly, for we know not the natural place." Edwards, in his "Flora Britannica," published in 1812, speaks of it as a garden flower, and says that it may readily be propagated by parting the roots and planting

words signifying "spur" and "flower." As the true valerians have not got this spur to the corolla, the present species is by some writers called the spur-flowered valerian—an unhappy compromise, for if it has a spur it is not a valerian at all. The old familiar name, red valerian, will do very well, as it is quite sufficiently near the true valerians to make the name hold in popular parlance. The specific name refers to the colour, so that its botanical name is especially descriptive, the crimson spur-flower. The special virtues of the red valerian do not seem to be very marked, but a plant that Gerarde brackets with it "helpeth paines about the backe and hucklebone;" so that if any one feels premonitory symptoms it is quite open to him to experiment on himself, and we can only wish him every success.





BOG ASPHODEL.



BOG ASPHODEL.

Narthecium ossifragum. Nat. Ord., Juncaceæ.

WE can well remember the satisfaction with which, after a long tramp on the Yorkshire moorlands, we first made acquaintance with the bog asphodel. All who have any practical knowledge of the wild moors of the north and the mountains of Wales or Westmoreland will be familiar with the subject of our illustration, as it is in the swampy and marshy bits of ground in these localities that one so often finds that the asphodel flourishes. Those who would gather it must not attach over much importance to such a detail as keeping one's boots dry, or they will have to be content with beholding it from afar, and the beauty of the plant richly deserves a closer inspection. The bone-breaking repute that it carries in its specific name bears record to an old belief that the bones of sheep feeding upon it become brittle and snap; but the plant

carries no such terrible power. Sheep, probably, would not even touch it if they had the opportunity, and a wise shepherd will not give them that opportunity; not, indeed, because he need dread the innoxious asphodel, but because he dreads the place wherein it grows. It is not the plant, but the wet, boggy ground in which it flourishes that proves a bane to the flock.

The star-like perianth of the flower is composed of six spreading and acutely-pointed parts of a brilliant yellow, and within these the anthers form a conspicuous feature. Each stamen, too, will be found to have the greater part of its filament—the slender part bearing the anther, or head—clothed with a thick, wool-like substance; and as this is white in colour, it readily attracts our notice on an inspection of the flower. The flowers form a stiff terminal raceme, rising well above the leaves, and the leaves all stand somewhat rigidly around the flower-stem, rising from near its base, and sheathing it. The foliage is very similar in form to that of the daffodil, but the leaves are much smaller; the whole plant is only a foot or so in height, and the leaves are about half this. The flower scape bears numerous scales. The plant is a perennial, and the roots creep a good deal, so that when the plant is once established it soon takes possession of the ground, and covers it with its golden spires.

The generic name, Narthecium, is derived from the Greek word *narthex*, a rod, probably from the straight upward growth of the flower-stem. The earliest botanists gave the name to a quite different species—the fennel, a plant equally characterised by a sturdy upward growth. Linnæus classed it as an Anthericum; and Dr. Hooker points out the curious fact that by an entirely undesigned

coincidence the name of the genus in which it is now placed contains exactly the same letters: the words form an anagram. The word asphodel was applied by ancient Greek writers to a plant that cannot now be satisfactorily identified, but the general balance of evidence would appear to be in favour of the narcissus, and the name of a close relative to this—the daffodil—is itself a corruption of the word asphodel. Why the present plant, which only bears a very distant resemblance to either the daffodil or the narcissus, should have got the name of asphodel, we are unable to say. Parkinson describes two species—a greater and a lesser marsh "asphodill;" but there is no such distinction really, and we can only suppose that two plants sent to him were so unequal in development that he thought they must be really different species, and his illustrations, rude in character as they are, bear out this idea. He says of them:—"Both these sorts have beene found in our owne land, as well as beyond sea, in the marrish and wet gronds, the former not only in Lancashire, as Gerarde hath recorded, but in divers other places, and the last likewise by Egham, not farre from the river side there, and in the west parts of the land also."

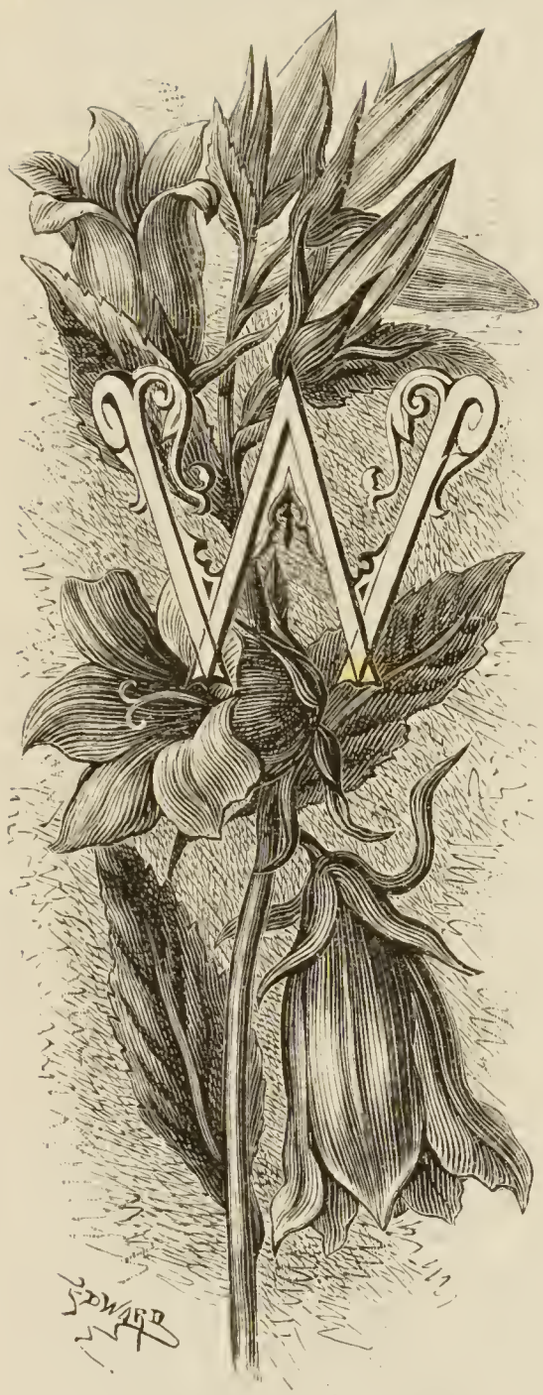
The older writers always endeavoured to find a "vertue" for everything; and Gerarde records that in some parts of the country young women used the bog asphodel to dye their hair of a yellowish tint, and called it maiden-hair. He also calls it King's Speare, Asphodelus luteus, and Hastula regia. Though he evidently prefers the name Lancashire Asphodel, and gives an illustration which he entitles Asphodelus Lancastria verus, he is not so utterly beyond conviction that the plant may be found elsewhere, as Parkinson seems to think. He shall, however, conduct his

own defence in his own words on the subject, which are as follows :—"The Lancashire asphodill groweth in moist and marish places neere unto the towne of Lancaster, in the marish grounds there, as also neare unto Maudsley and Martom, two villages not far from thence, where it was found by a worshipfull and learned gentleman, a diligent searcher of simples, and feruent louer of plants, who brought the plants thereof vnto me for the increase of my garden. I received some plants thereof likewise from Master Thomas Edwards, apothecarie in Excester, learned and skilfull in his profession, as also in the knowledge of plants. He found this asphodill at the foot of a hill in the west part of England, called Bagshot Hill, neere vnto a village of the same name." As a plant of the high moors, it is naturally more abundant in the north and west of England than in the south and east, as the former districts have thousands of acres of undrained, uncultivated upland, that supply it with all that is congenial to its well-being.





NETTLE-LEAVED BELL-FLOWER.



NETTLE-LEAVED BELL-FLOWER.

Campanula Trachelium. Nat. Ord., Campanulaceæ.

WE can well remember the delight we ourselves felt on first coming across this beautiful flower, and those of our readers who are familiar with it will fully share our feelings. It appears to be more freely met with in the northern districts of Britain than in the south, though it is pretty commonly distributed throughout the country. The nettle-leaved bell-flower should be looked for in woods, though we have often seen it in sheltered hedgerows, and especially those overhung with trees. Its general habitat is very similar to that of another charming plant, the foxglove, and the large size and rich colour of its blossoms tend to make it very conspicuous. Any one who has at all studied the matter will have been struck by the comparative rarity of blue or purple flowers in our flora, yellow, white,

and pink being the prevailing colours; and it is no doubt partly on this account that we, even involuntarily, admire the more the soft turquoise-blue of the forget-me-not, the deeper blue of the germander speedwell, or the rich empurpled azure of the wild hyacinth.

One old name of the flower is the Canterbury-bell. It is difficult to see why the name of this particular place should be so identified with the plant. On turning to Prior's most valuable work on "The Popular Names of British Plants," we find that he says, "So named by Gerarde, from growing very plentifully in the low woods about Canterbury." On turning to the old herbalist's pages to verify this, it does not in any way appear that Gerarde himself bestowed the name. He simply states that the plant "growes very plentifully in the low woods and hedge-rowes of Kent, about Canterbury, Sittingbourne, Graves-end, Southfleet, and Greenehyth;" but he also records it as occurring at Greenwich, and "in most of the pastures about Watford and Bushey, fifteene miles from London." All these localities are in the districts that a man like Gerarde, a resident in the metropolis, might be expected to know well.

To make matters more involved, Gerarde, without any valid reason, calls another species of campanula the Coventry-bell. He seems to have seen these "pleasant bel-floures" growing freely at Coventry and Canterbury respectively, and as the natives gave them the local names, he adopted them without fully considering that plants there abundant might be at least as common in fifty other localities. We have seen the Canterbury-bell in profusion in Yorkshire, and about Kendal the plant is so abundant that it is worth the while of the poorer people to collect the young shoots, and

use them as a pot-herb. It has been suggested that at a time when so many of our plants received semi-religious titles, the Canterbury-bell may have been associated with the sainted Thomas à Becket, as thousands of pilgrims flocked yearly to his shrine in the cathedral, and a plant so abundant in the district would be very familiar to them, and would afterwards, whenever and wherever else seen, serve as a memorial flower. Many of the old monkish names are now dying out, but we may just point out, without staying to point out the wherefore, that the bulbous crowfoot was dedicated to St. Anthony, the ragwort to St. James, the hypericum to St. John, the cowslip to St. Peter, while other plants were associated with Saints Barbara, Barnabas, Patrick, Christopher, and many others.

The nettle-leaved bell-flower is a rather variable species, but it will always be readily identified by its foliage and its "rough sharp-pointed leaves, cut about the edges like the teeth of a sawe, and so like the leaues of nettles, that it is hard to know the one from the other, but by touching them." The upper leaves are small, somewhat long in proportion to their breadth, and upon very short foot-stalks, while the lower ones are broad and large, heart-shaped, and having long stems. The flower-stalks are few in number, and spring from the axils of the upper leaves. The corolla is campanulate or bell-shaped, hence the scientific generic name; and the resemblance is so far good that blue-bell, or bell-flower, is the popular name for all the species. The five stiff-looking segments of the calyx, and the five large anthers in the centre, are other prominent features. The plant is a perennial, and flowers during July, August, and September. It attains to a height of some two or three feet,

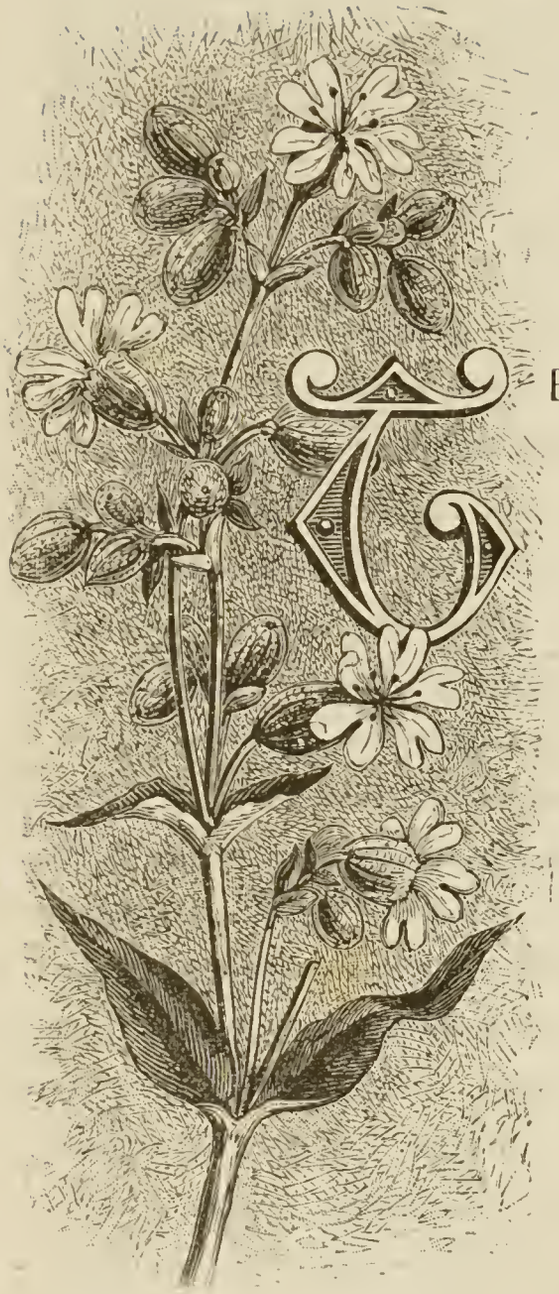
the stem being erect, rather stiff-looking, and the whole plant more or less clothed with hairs.

Besides the names we have given, the plant is sometimes called the great throat-wort, more possibly from the shape of its flowers suggesting its remedial application than from any inherent medicinal value, though the old authors do not fail to point out its service in "all paines and swellings thereof, being excellent good against the inflammation of the throte, and all manner of cankers and ulcerations of the mouth." As the throat had to be "gargarized" with a decoction of this plant and "allom," we may perhaps assume that the greater part of the virtue lay in the astringency of the latter. Sir Walter Scott, in his poem of "Rokeby," mentions "the throat-wort with its azure bells."





BLADDER CAMPION



BLADDER CAMPION.

Silene inflata. *Nat. Ord.* *Caryophyllaceæ.*

THERE are several species of campions—among which we have already figured the white lychnis, sea campion, and the pink campion. The ragged robin and the corn cockle we intend to place before our readers shortly. But here we deal with the bladder campion. Each year, at the same spot in our garden hedge, a specimen of this graceful and delicate plant springs up for our admiration; and while the gardener has full liberty in the matter of dandelions, groundsel, and many another wilding that has been so unfortunate as to display its attractions where they are unwelcome, our *Silene* is hedged about by household legislation that protects it from the spoiler. The stems are erect and loosely branching at their base, the few divisions into which they separate all preserving the general upright and slender character of the plant. These stems are ordinarily from one to two feet

high, though on open pasturage and exposed roadsides they sometimes fail to reach the former height, while we have sometimes seen them, when they spring up amidst a sheltering hedge or beneath the shadow of trees, attain to a greater height than the two feet we have given as the outside measurement of average plants.

The form of the foliage is simple, and the outlines are merely continuously waved lines; there are no lobes or serrations. The leaves, too, are always in pairs, and the stem thickens at the points whence they are given off. We see this opposite growth of the foliage and swollen stem in all the campions, and, indeed, in all the members of the order. Garden pinks and carnations supply a very good illustration of this. The bladder campion varies somewhat in the size and shape of its leaves, some specimens showing either larger or more attenuated leaves than those we see in our illustration; but the departure from the type is not extreme in character, and those who have our illustration before them will have no difficulty in identifying any specimen of the plant that comes in their way, as it is a very typical piece. The flowers are fairly numerous as they grow in graceful terminal clusters on the summits of the slender stems, and the purity of their colour tends to make them more conspicuous and attractive. It will be noticed that they are ordinarily slightly drooping. The petals are five in number, though each is so deeply cleft that, at a hasty glance, they appear much more numerous. There is often a small scale on each petal at the point where the broad and spreading part terminates, and these form a little ring or crown round the centre of the flower. These little scales may, however, be much better seen in some of the other species, as in the bladder campion they

are always small, and are often entirely absent. The calyx, from its size and inflated character, is a very conspicuous feature; it rapidly increases in size as the buds swell and open and develop into fully-expanded flowers, and these in turn give place to the fruit. The calyx is very light in colour, of a more yellowish green frequently than the rest of the plant, and very prominently veined and reticulated. The whole is of one piece, or what is botanically termed monophyllous, but it bears at its summit five large teeth. The stamens are ten in number and the styles three. The bladder campion should be looked for in pasture-land, on railway banks, waste places, and by the roadside. Its flowering-season is from June to August. It is commonly distributed over Britain.

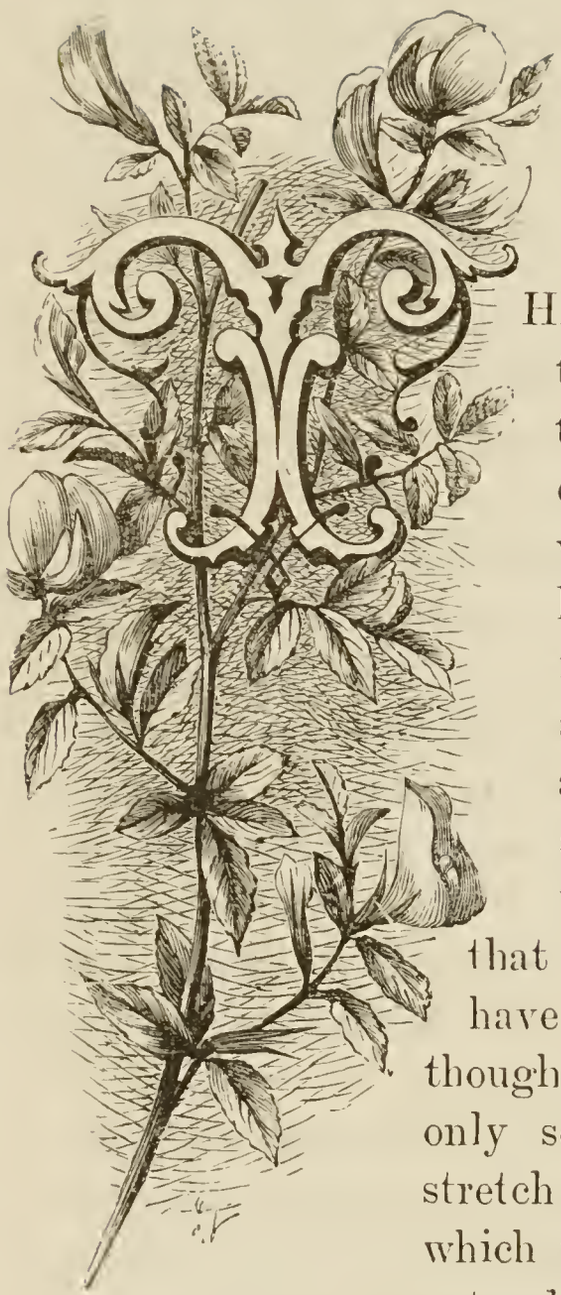
The word campion is said to be derived from the use of the flower as a wreath for the champions at the public games in the middle ages. This may possibly have been so, but it seems in the last degree unlikely, as the plants would have to be searched for far and wide to procure them in sufficient quantities for any considerable number of chaplets, and all the campions droop very quickly after gathering. Many other and more suitable plants could be obtained for the crowns of the victors. The prefix to our present species refers, of course, to its bladder-like calyx, and the specific title *inflata* scarcely needs translation, so evidently does it bear its meaning on its face. The plant was once called the cucubalus, a word derived from the Greek words signifying a bad or noxious growth. It is evident that the name, first employed by Pliny, has been diverted from the plant to which he applied it, and to which it may have been most appropriate, and has by some

mediæval misconception been given to a plant altogether innoxious. The bladder campion is in some parts of the country called white-bottle. We are told by some authorities that the young shoots of the plant may be used as a substitute for asparagus, but on the whole we should think asparagus as a substitute for campion would be preferable. The leaves, too, are said to be not unpalatable when boiled, but we imagine there is much more theory than practice in these recommendations; we can hardly imagine any one laboriously blanching the young shoots, or filling a basket by slow degrees with the foliage of the plant. The bladder campion, though commonly distributed, is not to be found in abundance in every pasture; and those who would desire to collect its leaves would have to wander throughout a long summer's afternoon before the basket got filled. "It is said to be so effectual against the scorpion, that this herbe cast upon one doth make him of no force to envenome any." A plant so potent may be well content to forego culinary fame.





REST-HARROW.



THE REST-HARROW.

Ononis arvensis. Nat. Ord., Leguminosæ.

THE rest-harrow, like the bush-vetch, the subject of a previous illustration, is one of the numerous examples that may be met with of what are termed botanically papilionaceous flowers. The term is derived from the Latin word *papilio*, a butterfly, since the blossoms of all these plants have an upright and often gaily-coloured petal at the upper portion of each flower that to some people, at least, appears to have suggested one of these insects, though probably most of our readers will only see in this a very considerable stretch of the imagination. The order to which the rest-harrow belongs is a very natural one, as the plants composing it possess several marked characteristics in common that unite them to each other and sever them from other flowers. All the British species have flowers of the butterfly type, and in these the sepals are always so united as to form a calyx that seems like a deep cup; from this springs the corolla, very irregular in form, and consisting of five petals. The upper one of these in the expanded flower,

and that which in the bud covers all the others, is named the standard; it is generally by far the largest of the five. Beneath this spring two lateral forms, ordinarily called wings. Within these, again, are two smaller members, which often unite in a portion of their length and form a V-shaped base to the flower, and are therefore called the keel of the blossom, from the boat-like form they assume. The stamens are always ten in number, and will be found on dissecting the flower to be either monadelphous (one brotherhood) all united into one mass, or diadelphous (two brotherhoods), in which case nine of them are united together while the tenth is above these and free. The fruit is a pod; the peas and beans of our vegetable gardens are a ready illustration of the form. There are nineteen English genera, many of them containing a great many distinct species. The furze, broom, sainfoin, and the different kinds of vetches and clover are good and familiar examples amongst our wild plants, while the lupins of our flower gardens, and the trees often called Acacia, but which are more properly Robinia, are other equally well-known and easily accessible examples.

The rest-harrow, the subject of our present plate, is not uncommonly met with on poor land, by roadsides, and the borders of fields. It is the *Ononis arvensis* of the botanist. It is a plant that is subject to a considerable variation of form; in growth sometimes erect, sometimes weak and trailing; very variable, too, in the spinous character of the stem, as in some plants this is a marked feature, while others are almost unarmed.

The blossoms are generally a delicate rose colour, but may at times be found pure white. On the strength of some of the more marked of these differences, some

botanists have established a second species, but there seems but little justification for doing so, as the differences, even in their extreme form are but slight after all, and intermediate forms between the extremes that have been taken as specific forms are not at all uncommonly found. A true second species is the small rest-harrow, the *Ononis reclinata ;* it is, however, an exceedingly rare species here, though very common in many parts of Europe, and need not therefore claim more than this passing remark.

The flowers of the rest-harrow rise singly from the axils of the leaves, a somewhat peculiar feature, as in most of the pea-flowers they are grouped together either into globular heads, as in the clover, or arranged in long racemes as in the wood-vetch. The stamens are monadelphous; that is to say, they form one united brotherhood. The leaves are either simple, or, more ordinarily, composed of three leaflets, two laterals and a terminal member, as in the leaf of the common white clover. The pod is very small, and hardly protrudes beyond the enclosing calyx.

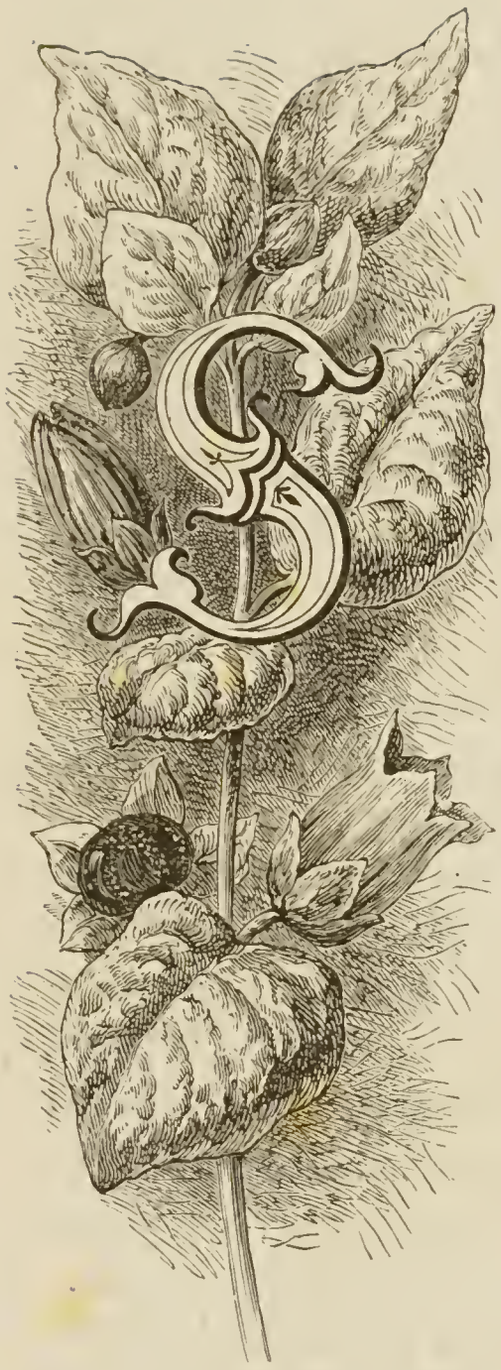
The rest-harrow derives its generic name from the Greek word for an ass, because it is said that the plant is eaten by that animal. The idea is very far-fetched, for even assuming the fact to be so, there are many other plants which, from their greater abundance and known attractiveness to the asinine palate, have a far greater claim to the name. We, however, go so far as to dispute the fact *in toto,* for, as our home circle includes one of those useful and much-abused quadrupeds, we several times attempted to get the plant tasted, but though proffered time after time with every blandishment, it was merely sniffed at and declined. It owes its common English name to its toughness, from a belief that when, during the preparation of the field, the

harrow arrives at its wiry and rooting stems it must perforce suffer a check that causes it to rest awhile before the obstacle is overcome. It is only fair here to observe that in some old books it is called the wrest-harrow; the idea involved is, however, much the same—that the toughness of its stems wrests the harrow from its course. It is also called cammock—a name that we cannot at all explain—and wild liquorice. This latter is a book name, not one in popular use. The true liquorice (*Glycyrrhiza glabra*) belongs to the same order; it has pale lilac flowers. It is a native of the south of Europe, but grows freely in the herb-gardens at Mitcham and elsewhere in England.





DEADLY NIGHTSHADE.



THE DEADLY NIGHTSHADE.

Atropa Belladonna. Nat. Ord., Solanaceæ.

STRIKINGLY beautiful as this plant is when the lurid purple bells are succeeded by the long rows of densely black berries, it has, most deservedly, so bad a reputation that it is seldom allowed to grow. The plant naturally has abundant means of increase, and would no doubt be not only widely distributed, but really common, were it not for the constant warfare waged against it. Its character is so distinctive that any one once seeing it cannot fail to recognise it, and as it is well that it should be recognised we are glad to include it amongst our series, though it will never be allowed to become really familiar, for the same reason that a man would not give his children prussic acid to "play shop" with, or let them have a loaded revolver to amuse them because it was too wet to go out. It is a plant that we should gladly see growing in our own garden, but we should dread the responsibility of putting it there, for,

if our younger children came to harm through its temptations, we should expect a jury to return a verdict of constructive homicide. The berries are luscious-looking and sweet to the taste, and have therefore frequently proved the cause of fatal accidents, children especially being attracted by them; and thus it is that Gerarde's advice is so generally complied with:—"If you will follow my counsell, deale not with the same in any case, and banish it from your gardens, being a plant so furious and deadly. Banish, therefore, these pernitious plants from all places neare to your houses where children do resort, which do oftentimes long and lust after things most vile and filthy, and much more a berrie of a bright shining black colour and of such great beautie."

The deadly nightshade should be sought after amongst old ruins and rough stony wastes in the South of England. It has occurred in more northerly localities, but is there probably the remains of a former cultivation of the plant, as, in spite of the great danger attending its use, it was employed medicinally in the Middle Ages. It grows very freely in many of the old chalk-pits in Kent. Gerarde found it in abundance at Highgate, in the north of London; but that particular locality has long since fallen into the hands of the builders. Several of the older writers speak of it as a common plant in the environs of the metropolis.

The root of the deadly nightshade is perennial, its stock very large, branched, and freely creeping. The stalks that spring from it are numerous, the thickness of one's thumb or so at their base, and reaching to a height of some three or four feet. They are longer, however, than they look, as they have a way of spreading outwards, and their upper extremities are almost horizontal for some distance. This

peculiar mode of growth renders the long lines of shining berries that fringe them very conspicuous to any one standing near enough to look down upon the plant. Parkinson says that the plant grows sometimes to the height of a man. This is a very indefinite measurement certainly, but we never ourselves saw the plant over four feet in height. The stems are round in section, branch at intervals, are often somewhat downy, and in open situations will be found to be of a dull purple tint. The leaves of the deadly nightshade are on short stalks, are of a pointed egg-shape, and have no notching or toothing of their margins. The lower leaves of the plant are considerably larger than the upper, and in all of them the veining is prominently marked. The stem leaves grow in pairs, but exhibit one marked peculiarity that would in itself serve to identify the plant, as these pairs always consist of one large and one much smaller leaf. Though the leaves are in pairs the flower-stalks that rise from their axils are always single, and each stalk only supports one blossom. This feature may be very well seen in our illustration. Sometimes a flower-stalk is given off at the forking of the stems. The flower-bearing stalks are always short, generally curved, rather thick-looking, and viscid to the touch. The flowers are bell-shaped, often rather drooping in direction, without odour, of a dingy or lurid reddish purple colour, somewhat viscid, externally glossy in surface, and marked with rather prominent veinings. The mouth of the bell is spreading, and cut into five equal segments. The calyx is slightly angular, and deeply divided into five segments; these are slightly unequal in size, and, like the stems, have a sticky feeling when touched. The stamens, from their length and the light colour of the anthers, are easily seen

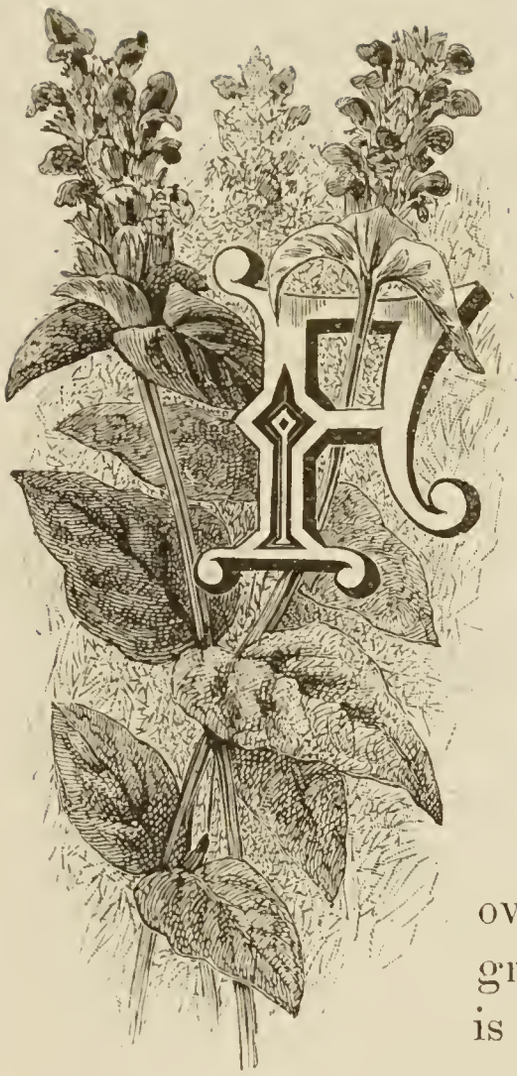
on looking down into the flower. The anthers are recurved on the filaments that support them; two of these filaments are rather shorter than the other three. The seed vessel is a large and glossy berry, almost round, but greater in width than height, and when ripe of an intense black. On cutting it across with a sharp knife it is seen to consist of two cavities, and each of these is filled with numerous brown seeds.

The names of the plant are all suggestive of its powerful qualities. In the one we have hitherto used the dark shadow of death and the rest of the grave are not obscurely hinted at. Another name for it is the "dwale." The root of this is possibly the Danish word signifying torpor; or it has been suggested that it is derived from the Anglo-Saxon *dwal,* foolish, in allusion to the stupefying and maddening powers of the poison; or again, that we are to find its meaning in the French *deuil,* mourning. In Germany the plant is the "tollkraut" —*toll,* frantic; *kraut,* herb. In France it is the "morelle mortelle," and in Buckinghamshire the local name is somewhat similar—"devil's cherries." The generic name *Atropa* was bestowed by Linnæus, and refers to Atropos, one of the three Fates of classic mythology.





SELF-HEAL.



SELF-HEAL.

Prunella vulgaris. Nat. Ord., Labiatæ.

FEW of those who have sufficient interest in our wild flowers to take up our book at all will find the self-heal a plant unfamiliar to them, for its heads of purple flowers spring up amidst the long grass in profusion in almost any piece of meadow-land and pasturage. The plant is an annual, and every year there is a bountiful dotting over of rich violet in the long waving grass of the hay-field. The self-heal is ordinarily a sign of poor land, and grows most freely in moist situations, in what one hears farmers call a "cold" soil. Its blossoms should generally be looked for in June and July, but on hedge-banks and other situations where the mower's scythe does not cut short its career it may at times be found flowering throughout August. The root of the self-heal is exceedingly fibrous. The stems creep a good deal, and send down roots from their lower joints, and the flower-branches ascend to a height varying from a few inches to a foot or more. In open and exposed situations the plant is diminutive, while in more sheltered

spots it is larger in all its parts. The specimen we selected was fully a foot in height, but then it grew amidst the long grass of a country churchyard, and so got drawn up to the light in the general struggle for existence. The stems are often deeply grooved and rough to the touch; but here, again, the circumstances of the plant's life largely influence the habit. Like many another denizen of earth, a hard lot furrows and roughens it, while the sunshine of prosperity removes many an angle. The stems, and especially the lower portions of them, are often tinted with reddish-purple, and the whole branches freely, lateral stems being thrown off in pairs at almost every node, and increasing in length the lower their position on the main stems. The leaves are placed in pairs opposite to each other, and are borne on short foot-stalks. In form they are what is termed ovate—oval, with a more pointed extremity. It will be seen in our illustration that they stand boldly out from the stem: a very characteristic feature in the plant. They are often a little harsh and rough to the touch, from a number of little prominent points on their upper surface, and their outline is either one continuous line, as in the example before us, or they are very slightly indented along their margins. Though our British examples are very much of one character, the self-heal on the Continent is found to vary a great deal in many respects, such as size and colour of the flowers, and more especially in the foliage, the leaves in foreign specimens being sometimes deeply lobed. The flower-spikes are terminal on the branches; at first very short, compact, and cylindrical, but presently opening out somewhat. It maintains much the same size throughout its length, and does not show the gradually tapering form that we often see in the inflorescence of many

other flowers. Immediately beneath each spike of blossoms we always find one of the pairs of leaves, sometimes standing out, like the other leaf-pairs, at about a right angle with the stem, but perhaps more frequently thrown downwards, as in the illustration. The flowers are arranged in dense whorls or rings, and a pair of broad floral leaves is associated with each ring, and adds to the compact, tense look of the whole. There are ordinarily six flowers in each whorl, but they by no means come out simultaneously in any one ring, so that a somewhat ragged-looking head of flowers is produced. The calyx is tubular, and composed of two conspicuous parts, the uppermost of which is flat, and terminated by three small teeth, and the lower one rounder, and divided into long and pointed segments. The corolla is ordinarily of a rich violet colour, though we sometimes find it white or of a reddish-purple tint. When the plant is gathered the blossoms are found to shatter very easily. The tubular part of the corolla projects a little beyond the protecting tube of the calyx, and then opens out into two distinct portions. The upper lip is hollow and dome-like, and very simple in form; the lower lip is cut into three conspicuous segments, the central one having its margin finely toothed. The stamens, four in number, are very curious in form, and any one finding a flowering plant should go in for a little amateur dissection of the parts. The filaments are long and tapering, pale violet in colour, and two of them longer than the other two; each is very curiously forked at its summit, and on one of each of these pairs of forks we find the anther, the other fork having no very visible *raison d'être*. The style is thread-like, much shorter than the stamens, and terminating in a bifid or twice-cleft stigma. The calyx, after the flowering-season

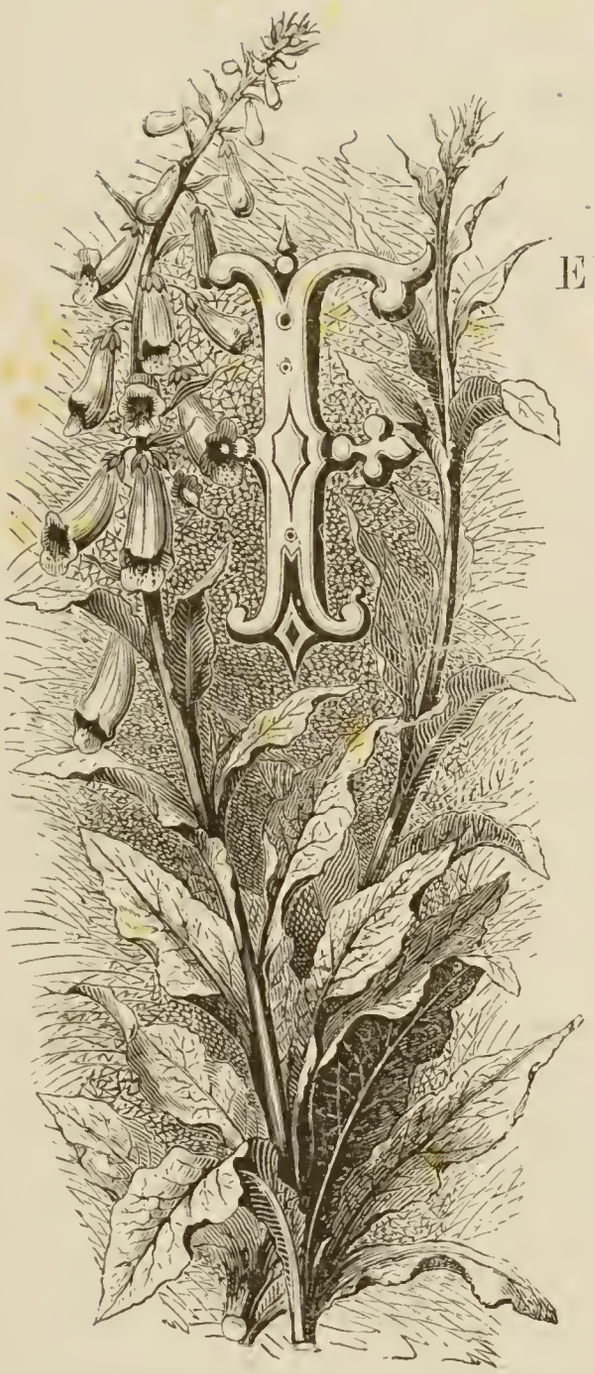
is over, closes up in a very curious manner, to preserve the seeds; these are four in number, rather small, smooth, and brown.

The older name of the plant was "Brunella;" we find it thus given by Dodonæus, Rivinus, and the more modern writer Ray; and on taking down our Tournefort—"L'Histoire des Plantes," published in 1732—we find that he, too, adopts the old spelling. Linnæus, Bauhin, Fuchs (the botanist in whose honour the fuchsia is named), and other writers call it "Prunella," preferring the softer sound of the word, but in so doing losing sight of its meaning. Hooker says that the name of the plant is derived from the German word "braüne," the quinsy; and Parkinson tells us, "this is generally called prunella, and brunella from the Germans, who called it brunnellen, because it cureth that disease which they call die bruen, common to soldiers in campe, but especially in garrison, which is an inflammation of the mouth, throat, and tongue." Amongst the old herbalists' names for it we find the carpenter's herb, sickle-wort, hook-heal, and slough-heal.





FOXGLOVE.



THE FOXGLOVE.

Digitalis purpurea. Nat. Ord.,
Scrophulariaceæ.

FEW, perhaps, of our plants excel in beauty the graceful foxglove, the subject of the present plate, and it may fairly be considered a general favourite; for though tastes proverbially differ, there are yet some points on which there is a very general similarity that amounts almost to unanimity. Whatever plants may be the special objects of admiration in the diverse minds and tastes of our readers, all will, we think, place the present plant, if not actually on the throne as queen of all, at least in a position very near to it. It is, practically, a better position to stand second in the regard of a numerous body of admirers, than in the first place in the estimation of but few: the latter may be but the result of caprice, the former testifies

to general admiration—an admiration that the stately dignity and grace of the flower fully merit. One very fair test of the appreciation in which a plant is popularly held, is that its admirers transfer it from its native home that they may be able, in their gardens, to have more frequent opportunity of enjoying its beauty. This test is not of universal application, as some plants are too fragile to bear removal kindly, or too much wedded by nature to their wild homes to thrive in alien soil; but it may be accepted in a general way. Amongst the plants thus transplanted, we frequently find the foxglove; we, only this summer, saw a large garden in which there were hundreds of them in full blossom, and very beautiful they looked, rising in rows and masses behind the smaller plants in the borders and shrubberies. It appears to bear removal better than most plants, though any one who would see the foxglove in perfection, must see it as it rises from amongst the rocky *débris* on the mountain-side. In some parts of Wales and Devonshire we have seen it growing in such profusion, that hundreds of its long flowering stems could have been gathered in a space so limited, that to mention it would lay one open to a charge of gross exaggeration from those who have never had the good fortune to see a sight so beautiful. It may also commonly be met with in woods and on the hedge-banks throughout the greater part of Britain, though in some districts it is rarely or never met with in a wild state. The foxgloves in the garden that we have already referred to were the more prized because, though they throve excellently well, they were unknown in a natural state for miles and miles round. It appears to us curious that the plants should thrive and blossom abundantly in a

garden in a thoroughly rural district, and yet that in the hedgerows around they should be so entirely absent.

The foxglove is the *Digitalis purpurea* of the botanist. The genus contains but this one indigenous species in our flora, though several other species are found abroad, and some of these occasionally find their way into our gardens. The generic name is a Latin word, and signifies that which pertains to the *digitus*, or finger; and in some parts of the country the plant is called finger-flower. The specific title indicates its colour, though, like most purple flowers, it occasionally varies to white. It is a plant of many names; but as these are mostly of local and provincial bestowal, we need scarcely stop to mention them, nor attempt to analyse their meaning. Thimbles, fairy's dresses, the mouths of tigers, lions, and dragons, and many other objects, have been pressed into the service, from the rustic desire to find some appropriate similitude.

The foxglove ordinarily throws up one or more flowering stems; these are, on an average, from three to four feet high, though even this may at times be exceeded. These flowering stems give off a few leaves, that gradually diminish in size from below upwards; these are on the lower portion of the stem, the upper being occupied by the long line of graceful bell-like flowers. The radical leaves spread out like a large rosette; they are on long stalks, and of considerable size. The veins are a very prominent feature in all the leaves. The plant is ordinarily a biennial; in the first year, therefore, it forms the large tuft of broad and rugged radical leaves, and in the second year, at the appropriate season, the flower-stem is formed. It will sometimes continue to blossom for two or three years. It flowers from May to August. The blossom is

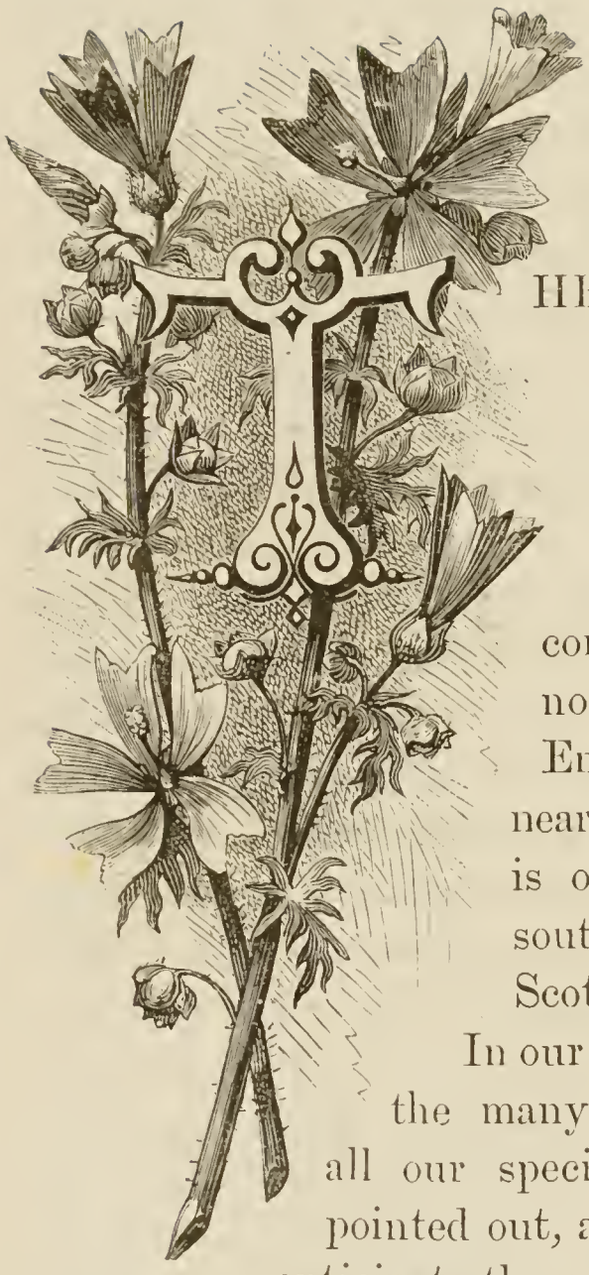
campanulate in form, but its under surface is considerably dilated. The interior of the flower is very curiously spotted. The calyx is composed of five unequal pieces; four of these are broad, the fifth and upper one much narrower than the others. As the blossoms of the main stem gradually fall away, smaller lateral stems are often thrown out from the axils of its leaves, and these may be seen fully in flower when the central stem shows little else but the relics of bygone beauty. These lateral stems are also promptly thrown up if by any mischance the central and principal stem sustains any serious injury.

The foxglove has long been held in esteem for its medicinal properties. The leaf is the part employed, those of the second year of the plant's life being selected and gathered during the period the blossoms are out. It figures as the main ingredient in several preparations in the modern pharmacopœia.





MUSK-MALLOW.



THE MUSK-MALLOW.

Malva moschata. Nat. Ord., Malvaceæ.

THE musk-mallow, the subject of our present illustration, while not so abundantly found as the plant which we shall shortly figure, and which by pre-eminent right is called the common mallow, is nevertheless not uncommonly met with in England and Ireland. Like its near ally the common mallow, it is only found in Scotland in the south; in the northern counties of Scotland it is wholly unknown.

In our remarks on the common mallow the many features that are common to all our species in the order *Malvaceæ* are pointed out, and we need not, therefore, here anticipate them. The musk-mallow is a perennial. From its root proceed several light and delicate-looking stems, erect in general direction, very slightly branching, and covered frequently with numerous hairs. The plant is ordinarily from one to two feet high; it may at times be found even higher, but this is exceptional, and will generally

be found to be the result of being drawn up from want of air and light, or some other disturbing cause, as it is on the average a decidedly smaller plant than the commoner species. The leaves vary a good deal in form according to their position on the plant. The lower leaves are reniform and divided into five or seven broad lobes that do not penetrate very deeply into the body of the leaf; those on the stem, on the contrary, are very deeply divided, and the segments are themselves narrow and much cut into and subdivided, a feature that at once serves to distinguish this from our other indigenous species. The flowers are large, and the form of the petals is rather peculiar, appearing almost as though the end of each had been bitten off in a somewhat ragged and deeply curved line. The colour is a delicate pink, varying at times to pure white. The blossoms spring either singly or in pairs from the axils of the leaves, but occur almost entirely at or near the ends of the stems, so that the general effect produced is that of a stem clothed with graceful and finely-cut bright green foliage, and crowned with a mass of large rose-coloured blossoms. The involucral bracts on the exterior of the calyx are very narrow in proportion to their length. The musk-mallow is the *Malva moschata* of the botanist. It owes its name to a slightly musky smell that is perceptible when the leaves are passed through the hand; the odour is very slight, however, and suggests but little of the fragrance of the plant after which it is called. The plant may be found in flower during July and August, and should be looked for in pasture-land and roadside wastes and hedgerows. Its masses of delicate pink blossoms, and their large size, are sufficient to make it very conspicuous, but it is much more commonly found in some districts than others.

The tree-mallow, or *Lavatera arborea*, is a fine allied species. The stems are often five feet high; the blossoms are large and of a rich purplish-rose colour. It is only found on maritime and insulated rocks, and is very local even under these limited circumstances. The name was given to the plant in honour of the two Lavaters, men of note in the scientific world as botanists in the earlier days of the science.

The dwarf mallow, or *Malva rotundifolia*, is very commonly met with by the roadside and other waste ground. It is altogether a much more diminutive plant than the common mallow, though in most other respects it is very similar to it. It was by the older botanists called the *M. vulgaris* or *M. neglecta*, names that need no translation, and amply testify alike to its commonness, and the ordinary consequences thereof in accordance with the old wise saw that so closely links together familiarity and contempt.

The marsh-mallow is the only remaining species on which we need dwell at all, as the hispid mallow is too rarely met with to be at all likely to come within the reach of any of our plant-seekers: it has been carried into some few places among other seeds, and appears to have fairly established itself in one or two places in Kent, but it has not the slightest claim really to a place in our flora. The marsh-mallow is the *Althæa officinalis* of science. It is often in common parlance confused with the musk-mallow, from a certain resemblance in the names. The generic name is from the Greek verb signifying to cure, while the specific name in like manner alludes to its officinal value. It flowers during August and September with a pale rose-coloured blossom, and must be looked for in marshy districts, not far removed from the sea. The plant grows

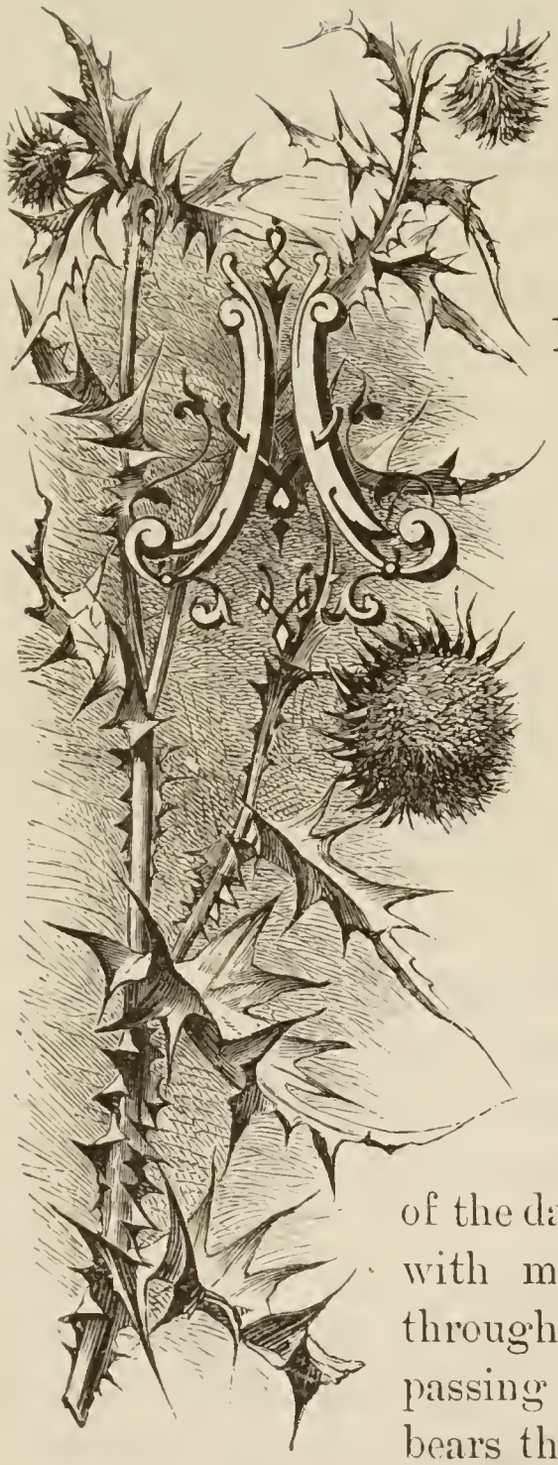
some three feet high or so, and is covered all over with a velvety down. The marsh-mallow has long been valued as affording a desirable remedial agent. Classic, mediæval, and modern authorities are unanimous in extolling it. The roots abound in a mucilaginous matter that is of great service in pectoral complaints; they are thick and fleshy, and much resemble those of the parsnip, and yield nearly half their weight of this valuable mucilage. Preparations of the marsh-mallow are included in our pharmacopœia, and instructions are therein given for the preparation of decoctions, syrups, and lozenges from the plant. Their action is demulcent and emollient.

Some of our readers may recall a passage in the book of Job, where it speaks of those who through want were fain to flee into the wilderness and cut up mallows for their support. It is always open to question in such matters how far our translators have correctly divined the herb intended, but we have good authority for saying that the poor in Palestine, in the present day, largely use a plant of this genus to eke out their scanty diet. The leaves of the common kind are at times used in our own country districts as an article of food.





NODDING THISTLE.



THE NODDING THISTLE.

Carduus nutans. *Nat. Ord., Compositæ.*

ANY one who has been in the habit of observing the plants of any rural district through which he has been passing, or in which it may have been his lot to live, will scarcely have failed to notice not only how very numerous the thistles are everywhere, but also how considerable is the variety of form that may be noticed amongst them. Their commonness arises from the fact that each of the very numerous flower-heads they bear produces an enormous number of seeds, and these, like those of the dandelion or groundsel, are furnished with means that enable them to float through the air for long distances. Every passing breeze liberates them in scores, and bears them far and wide. It is therefore a most difficult class of plants to keep in check, and it is unfortunately not only the careless agriculturist himself who suffers through the choking of his crops by the vigorous

growth of these usurpers, but his apathy inflicts no less serious damage on his luckless neighbours. All such plants should be carefully cut down and removed before the seeds develop. In old times many severe laws were passed requiring all such things to be rigorously extirpated, and it would surely even now be no less an advantage to more painstaking and careful landholders, if some similar check were in force. There is in some country districts an old proverb, often quoted, "One year's seeding makes seven years of weeding;" and we recall to mind at this present time as we write, a small plot of ground near to us, that in the hands of a careless farmer has been allowed to produce a vast crop of hurtful plants that will make their influence felt all round the district for years to come. Thorns and thistles are by many good people regarded as a necessary curse, associated with the first fall from primeval innocence, but there is certainly no warrant for any listless folding of the hands. Undoubtedly they contribute their share to the necessity for labour, but good wholesome work is very far from being a curse. All possibility of evil lies in wait for the idle; a boundless possibility of blessing awaits those who follow the Divine law, and become in some humble but true sort fellow-workers of Those of whom it is written, "My Father worketh hitherto, and I work."

Amongst the numerous kinds of thistles that may readily be met with, the spear plume thistle and the present species are perhaps the finest, regarding them simply as ornamental plants. In each species the general growth is bold and vigorous, the flower-heads large and rich in colour, and when seen in a situation where the circumstances of growth are propitious to them, they

form somewhat striking plants as they tower above their lowlier neighbours.

The nodding thistle, or musk thistle, as it is sometimes called, is more especially found on wide open wastes, on bleak stony moorlands, or the broad expanses of chalk downs of the south and west of England. Almost all lovers of plants will recall with pleasure the occasion when they first made the acquaintance of some new species, or saw some old favourite under exceptionally favourable conditions. To ourselves, the sight of the white water-lily especially recalls the memory of a quiet pool on the Wey, where, fringed all round with dark solemn firs, the stream itself was one mass of the large floating leaves and creamy white cups of this lovely flower. Meyringen is ever in our mind a key-word to recall the boundless profusion in its mountain pastures of the gay meadow saffron; and the present plant is a pleasant memory of a long walk once taken through a district that for miles was full of this stately thistle and that culminated in our first sight of Stonehenge.

The nodding thistle is the *Carduus nutans* of science. It has been suggested that the generic name is derived from the Celtic *card*, the spiny points of some of the flower heads of the thistle having possibly been used as a means of carding wool; or that it is a corruption from the Celtic *ard*, a sharp point, a feature that the thistles certainly possess to a somewhat painful degree. Neither of these derivations, we confess, appears to us quite satisfactory; but we are unable to suggest a better, and must perforce leave the question in the hands of our philological readers. The specific term *nutans* simply means nodding. Our English name for the various plants

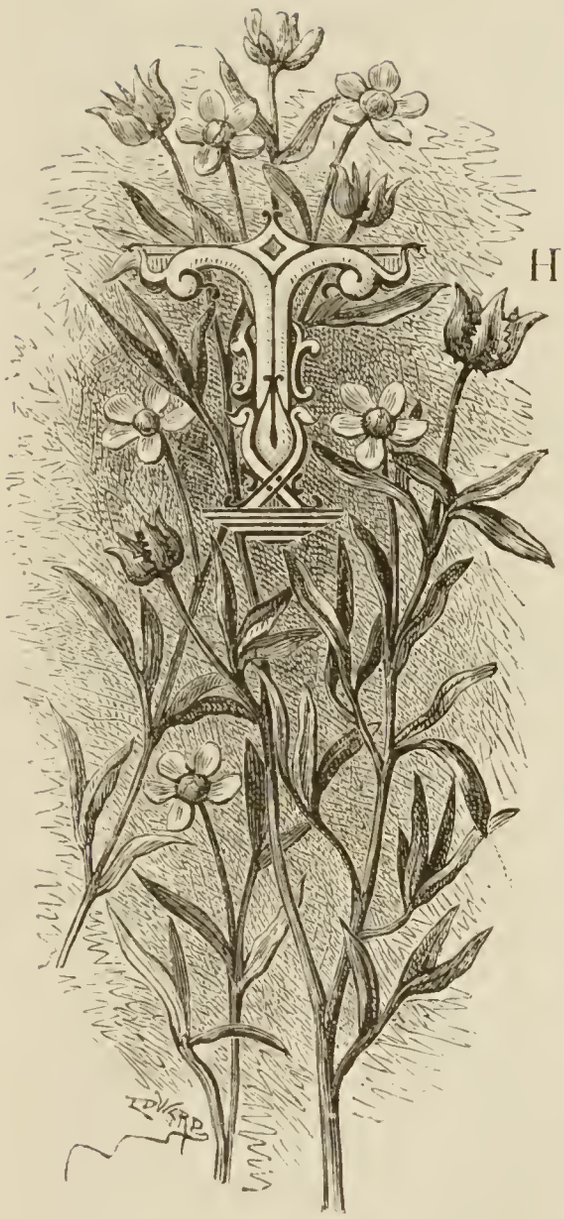
of the genus is almost literally the same as that used by our Anglo-Saxon forefathers, *thistel*. The flowers of the present species have a very peculiar but fragrant scent, though we should hardly have thought of comparing it ourselves to musk, or calling the plant the musk thistle, on the strength of the resemblance in odour.

The nodding thistle is a biennial, and will ordinarily be found in blossom from about the end of May to the beginning of October. The plant grows from two to three feet high; the stems are stout and but little branched, and give the thistle a sturdy self-assertive appearance, that is no doubt really the result of the necessities of its position, as no plant of feeble growth could stand against the force of the winds as they sweep across the open moorland. The leaves are long and very deeply cut, their bases are prolonged some little distance down the stem, giving it a very prickly character. The flower-heads are large, the largest of all our thistle blooms, and very handsome both in form and colour. The involucre from which they spring—the part corresponding in position to the calyx in flowers of simpler type—is very large and prickly, and has a peculiar webbing of hairy or woolly lines.





CORN CROWFOOT.



CORN CROWFOOT.

Ranunculus arvensis. Nat. Ord., Ranunculaceæ.

THE corn crowfoot, like the scarlet poppy or the corn marygold, is one of the flowers that are to be specially searched for in corn-fields, though, like the flowers we have named, it may occasionally be found growing up amongst other crops. Hence one old writer terms it "the crowfoot of the ploughed fields," and another "the crowfoot of the fallowed field"; and its specific name *arvensis* and the old herbal name *Ranunculus arvorum* each point in the same direction and carry the same significance. Unlike many of our English plants, it seems to have no alternative names, but is always and everywhere the corn crowfoot, with the exception of the very local name of hedgehog, a name derived from the prickly ball of seeds. Our readers will on inspection of our illustration feel with us no doubt that the name is not by any means a bad one, and shows

a little more observation and sense than many of the names bestowed by country folk on the plants around them.

The corn crowfoot is an annual; it flowers during May, June, and July, and its seeds ripen soon after. It is one of those plants that, from the length of their flowering duration, may be found in all stages simultaneously; the opening bud, the fully-expanded flower, and the ripened seed may all be seen at the same time. The roots of the corn crowfoot are simple and fibrous, so that the plant could easily be eradicated; but the shattered seed readily vegetates, and the next season sees the plant in as full possession of the ground as ever. The stems of the plant are in general direction upright, a foot or so in height, and rather freely branching or forking. Before flowering the branches are somewhat nodding, but become rigid and erect afterwards. The general colour of the stems is a pale green, but near the joints they are often empurpled. The whole plant is smooth in texture. The leaves are mostly alternate in arrangement on the stems, though some of the upper ones are opposite; the upper leaves are on short stalks, the lower ones on longer ones. The forms of the leaves, too, vary according to their position on the plant, for while all are deeply cut into narrow segments, the upper ones show this in a still more marked degree than those near the base of the plant. On a closer examination of any of the leaves, they will be found to consist of three plainly-marked divisions, and these again are each more or less cut up into finer strap-like parts. Except for the colour, the general effect of the foliage is not unlike some of our common species of sea-weed. The leaves have not the rich clear green tint we ordinarily associate with vegetation, but are dull in colour, "resembling," as Gerarde

says, "the leaves of sampire, but nothing so greene, but rather of an overworne colour." This last adjective, though quaint, is a peculiarly happy and descriptive one, and very aptly describes the dull and somewhat faded-looking colour of the foliage. The flowers of the corn crowfoot are of rather a pale yellow; they have neither the rich golden hue nor the large size of the blossoms of most of its brother crowfoots or buttercups. By the way, we may here remark that in all the old herbals the plural of crowfoot is crowfeet. The corolla consists of five ovate petals, glossy on their inner surfaces, and rather conspicuously veined on the outer. The spreading calyx, made up of five sepals, is whitish yellow —in fact, in almost all the ranunculuses we find it a sort of faint colour echo of the corolla, instead of the decided green tint that we expect to see in most flowers. The stamens are comparatively few in number. The large and flattened carpels that form the fruit of the plant are a very curious and interesting feature, the prickles with which they are covered on each side tending to render them noticeable. In the small-flowered ranunculus, *R. parviflorus*, the carpels are covered with small tubercles, but the feature is by no means so conspicuous as in the present plant. In our remarks on preceding species of the genus we have explained the significance of the generic name, a significance far more appropriate in the case of many of the other crowfoots than in the present instance, as our plant is no lover of the damp low-lying meadow-lands, or the ditches and streams that are the home of most of the other members of the genus. The specific name is from the Latin word *arvum*, a ploughed field, and exactly describes the habitat of the plant. All these plants are called crowfoot from a fancied resemblance between a bird's foot and the form of the foliage.

The mediæval writers received in full faith much that the still earlier authorities asserted, hence their writing is a good deal taken up with endeavours to identify the plants enumerated by such authors as Pliny and Dioscorides, and described by them not so much from a botanical point of view as a medicinal. The ancient writers ascribed the most wonderful healing powers to the various plants, and it became therefore a matter of no small importance to duly discriminate and identify them in order that full benefit might be taken of the wealth of remedial virtue thus revealed. As Pliny has a *pes galli* and Dioscorides a *pes corvi*, we may easily see how such names obtained a footing with our early writers.

The corn crowfoot is the most potent of a potent genus. Three ounces of its juice given to a dog killed it in four minutes, and though animals as a rule instinctively avoid the plant, sheep have been killed through eating it. Fortunately it is not a plant of the pastures, and as it grows chiefly amidst the corn and amongst crops where cattle have no business to be, its deleterious qualities do no harm.





BROOM-RAPE.



BROOM-RAPE.

Orobanche major. Nat. Ord., Orobanchaceæ.

THE extraordinary-looking plant here presented to us is by no means uncommon, though the singularity of the colouring would lead one at first sight to suppose that it is merely some dead and withering plant amongst the surrounding verdure, and thus it would naturally get overlooked. A closer examination will, however, amply repay us, as the plant is full of quaint interest, and what at first glance seemed a mere dingy brown mass will reveal itself as a long line or spike of grotesquely-shaped flowers. Another curious feature is that the plant does not grow directly from the earth, but is parasitic on the roots of other plants. The plant on which it more especially grows is the common broom, but it may also be found on the furze and other leguminous or pea-flower plants. The stem of the broom-rape is from a foot to a foot and a half

high, very upright, unbranched, hollow in the interior, round in general section, but a good deal channeled on the exterior, and of a dull purplish-brown or rusty-red tint. It is freely clothed with dry and withered-looking scales, a feature that may be clearly seen in our illustration, and at its base it expands into a bulbous-looking mass, closely clothed and covered with numerous overlapping scales. As the stem ascends these gradually become less crowded together. The plant has no true leaves. The flowers, like the stems, vary in tint from a dull purplish brown to one of a more reddish tinge, a tint that all our readers who own a colour-box will readily recognise when we call it a burnt sienna; there is often a purplish bloom too that adds to the beauty, and altogether the dry and withered-looking thing will on closer view prove wonderfully varied in quiet gradations of yellow, red, brown, and purple, and by no means unworthy of the pencil of many who would probably cast it aside. On picking off one of the members we find it in all its parts a true flower, duly furnished, like the golden broom which waves above it, with calyx, corolla, stamens, and all else that is essential to a typical blossom. The corolla is irregular in form, and with a widely-opened mouth. The tube of the corolla curves considerably, and gives a quaintly grotesque look to the plant, that may be more readily seen in our figure than appreciated by any verbal description. The mouth of the flower is deeply cut into two prominent lips; the upper of these is concave and slightly cut into three segments, while the lower and larger lip is similarly cut, but the cuts are much deeper. Of the three lobes or segments thus formed, the central one is considerably the largest. All the segments are very much waved and

crinkled, so that the forms are somewhat difficult to trace, and the flower is consequently by no means an easy one to draw.

The literal translation of the Greek word *Orobanche* is "strangle-tare." The term was originally used by Theophrastus, and we find it again applied by Pliny and Dioscorides to another plant. What the plant of the first of these writers could be we have now no certain means of knowing, though the words he employs to describe it clearly indicate a climbing plant; but the *Orobanche* of the other two old writers agrees entirely in its description with the plant we have figured, and leaves little or no doubt on our minds that the name has been borne by the same plant for more than a thousand years. From its habit of living on other plants, and weakening them for its own support, it was called in some parts of Italy, we are told by Matthiolus, the wolf-plant. Its pernicious effects are confirmed by a later Italian writer, Micheli, who mentions its being proscribed in Tuscany by public edict. The English name is derived from the Latin *rapa*, a turnip. The tuberous mass of scales at the base of the stems is supposed to resemble a turnip, but the resemblance is of the slightest possible character. It is a fairly globular mass at the base of the stem, and that is really all that can be said; in colour, size, and almost every other respect, it is wholly unlike it. The mediæval title, *Rapum genistæ*, is evidently only a translation into Latin of the common English name. Curtis says that the strong astringency of the plant makes it a useful vulnerary, but the plant has a slightly uncanny look that would probably make many people rather chary of meddling with it. Both Parkinson and Gerarde refer incidentally to it when the broom comes

under their notice, and give a fairly good drawing of the broom plant and this parasite adherent to its roots. Parkinson speaks of it as follows: "From the rootes hereof in many places (but more often where no broome growethe, namely, by fields and hedgesides, and upon heathes) growethe another plant whose stalke is of the bignesse of a finger or thumbe, having a show of leaves on them and many flowers at the toppe, somewhat like unto the flowers of orchis, but larger, and of a deadish yellow colour." He commends the stems as a substitute for asparagus, but says they are far more bitter, and it appears, according to him, to be "a singular good helpe" for divers complaints. His reference to the broom-rape being more often than not found away from the broom, does not invalidate its name, but only indicates that it is parasitic on several species of leguminous plants.





PURPLE LOOSE-STRIFE.



PURPLE LOOSE-STRIFE.

Lythrum Salicaria. Nat. Ord., Lythraceæ.

ALMOST every one who has any experience of the country will have noticed the beautiful purple spikes of flowers which the purple loose-strife so plentifully throws up during the latter part of summer, and which render it so conspicuous an ornament on the banks of rivers and ponds. We have often wondered that our landscape painters have not more extensively availed themselves of such characteristic wild growths as the present to give an added charm to their work, and furnish it with another proof of its truthfulness to nature. The water-lilies, both yellow and white, and the great reeds and bulrushes are often introduced, and the fine large leaves of the butterbur are given very effectively; but we can only recall a very few instances of the introduction of the graceful and brilliantly-coloured purple loose-strife into representations of the tangled mass of vegetation that fringes the stream. The necessarily small

space at our disposal, if our book is to become, as we hope it may, the companion of our readers in their country rambles, only enables us to do scant justice to the plant. The loose-strife attains to a height of some four feet, and throws up numerous spikes, most of these being at least as long again as the specimen with which the exigencies of our space have compelled us to be contented. Each plant may possibly show an average of some half-dozen of these "long purples" flowering simultaneously.

The root-stock of the purple loose-strife is perennial, so that when the plant has once established itself it may be looked for regularly year after year, as the localities the plant affects escape the action of the plough or the sharp sickle of the reaper. The root is thick and branched, and widely extends itself. The stems are thrown up to a height of three or four feet, and are more or less branched. Any side-branches that may spring from the central stem preserve its general direction. The general aspect may be described as more aspiring than bushy. The stems are ordinarily four-cornered, but at other times hexagonal, the difference depending upon the arrangement of the leaves. The angles of the stems are sharply defined, and rough to the touch. The lower branches always spring in pairs or threes, but the upper ones seem less bound by law. The leaves are ordinarily opposite, in which case the stem is square in section, but we often find the foliage, as in our illustration, springing in threes; when this is the case, the stem section is hexagonal. The leaves are stalkless, and their bases more or less clasp the stem. In form they are lanceolate, and their outline is smooth, like that of the privet or the box; they are ordinarily about three inches long. The

upper surfaces are of a clear fresh green, the lower somewhat greyer, from the slight downy hairs over them.

The spikes of flowers are terminal and cylindrical. In our illustration we have been obliged to choose one in an early stage of development, so as to show the whole of it, and the result is, the flowers and buds are rather densely packed. As the spike develops it elongates, and it is then seen to consist of rings or clusters of flowers, separated by a slight interval of stalk, each cluster consisting of some six or eight blossoms. The corolla is composed of six petals, and the tubular calyx, into which they are inserted, is divided into twelve segments, six long and six short. A dissection of the flower shows us the twelve stamens; at the bottom of the tube are six short ones, and rising between these are six others about as long again. The anthers of the small ones are yellow, and of the others purple.

In speaking of the plant it is always necessary to particularise the colour, or confusion will arise between this and the yellow loose-strife, a plant quite different botanically, and one which we have already figured. Both are equally common, both are found in the same localities, and both are called loose-strife, and there the resemblance ends. The reason why it is called loose-strife has already appeared in describing the other species, as it was with that one that the name originated, and then got transferred without any special reason to the present plant. A certain conspicuous yellow plant, for a more or less satisfactory reason, received the name of yellow loose-strife; so it seemed reasonable to our forefathers that another conspicuous plant often found with it should be called the purple loose-strife. Our present plant is in Ireland the *Irebull caitin*,

and in Wales the *gwyarllys*, or sometimes the *Llys y milwr*.

The generic name *Lythrum* is from the Greek *lythron*, blood; a name that, it is supposed, was bestowed on it from the rich crimson of the flowers, but it certainly is not of the tint its name suggests, as there is a strong purplish tinge in the colour. De Haen suggests a medical use of the plant that is much more likely to have earned it its name. *Salicaria* is derived from the Latin *Salix*, a willow, and alludes to its willow-like leaves. It was by the older botanists classed among the willow-herbs; one, we see, calls it the *Salicaria vulgaris purpurea*, and another, in the lengthy fashion of those days, the *Salicaria foliis lanceolatis*. It was at one time held to be very valuable as an application to the eyes, strengthening them and preserving the sight.



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79606

FAMILIAR WILD FLOWERS

FIGURED AND DESCRIBED BY

F. EDWARD HULME, F.L.S., F.S.A.

"Not worlds on worlds in phalanx deep
Need we to prove a God is here;
The daisy, fresh from Nature's sleep,
Tells of His hand in lines as clear.
For who but He who arched the skies,
And pours the day-spring's living flood,
Wondrous alike in all He tries,
Could raise the daisy's crimson bud,
And fling it, unrestrained and free,
O'er hill and dale, and desert sod,
That man, where'er he walks, may see
In every step the stamp of God?"

GOOD.

Fifth Series

WITH COLOURED PLATES



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LA BIBLE SAUVAGE

CONTENTS.

	PAGE
Autumnal Hawk-Bit	1
Common Mallow	5
Common Avens	9
Meadow Saffron	13
Scentless Mayweed	17
Wood Sage	21
Creeping Thistle	25
Water Rag-wort	29
Tansy	33
Wood-Vetch	37
Common Sow-Thistle	41
Leopard's-Bane	45
Herb-Robert	49
Woody Nightshade	53
Corn-Cockle	57
Heart's-ease	61
Shining Crane's-Bill	65
Ragged Robin	68
Snowdrop	69
Snowflake	70
Meadow Vetchling	73
Celandine	77

PAGE

Ground Ivy 81

Prickly-Headed Poppy 85

Heather 89

Dove's Foot Crane's-Bill 93

Centaury 97

Orpine 101

Sweet Briar 105

Larger Knapweed 109

Lesser Red-Rattle 113

Sea-Lavender 117

Hedge Calamint 121

Rag-wort 125

Field Thistle 129

Tuberous Pea 133

Red Bartsia 137

Milk Thistle 141

Hedge Stachys 145

Corn Blue-Bottle 149

Fritillary 153

Water Fig-wort 157

SUMMARY.

It should be prefaced that this summary merely professes to give a brief epitome of each of the plants represented in this volume, and that it is principally a condensation from the writings of Hooker, Lindley, Bentham, or other authorities on the subject.*

AUTUMNAL HAWK-BIT, *APARGIA AUTUMNALIS. Nat. Ord., Compositæ.*—Florets all ligulate and perfect, bright yellow. Stamens five, their anthers syngenesious. Receptacle naked. Involucre unequally imbricated, bracts closely appressed, tapering. Pappus feathery, without bristles; brown. Summit of peduncle enlarged. Achene beaked. Flower-stems erect, wiry, branching, bearing single flower-heads, slightly hairy. Leaves long, narrow, pinnatifid, lobed.—Meadows and banks. July, August, September. Perennial. *p.* 1.

COMMON MALLOW, *MALVA SYLVESTRIS. Nat. Ord., Malvaceæ.*—Calyx five-cleft; and a three leaved involucre. Corolla of five petals, regular, obcordate; purplish-red, with darker veins. Flowers clustering at axils. Stamens numerous, monadelphous. Carpels numerous, arranged in ring, single-seeded. Style much divided. Leaves alternate, stipulate, stalked, orbicular, deeply lobed, serrate. Stem erect, branching, hairy.—Roadsides, wastes, and rubbish-heaps. June, July, August. Perennial. *p.* 5.

COMMON AVENS, *GEUM URBANUM. Nat. Ord., Rosaceæ.*—Calyx of ten segments, alternate and outer ones very small. Corolla of five equal spreading petals, perigynous, small; bright yellow. Stamens numerous, perigynous; anthers two-celled. Styles terminal. Carpels numerous, in a compact head, ending in long awns, which are hooked at tip. Stem leaves sessile, ternate; radical leaves stalked, interruptedly pinnate; all coarsely serrate. Stem erect, slightly branching, stipules large, foliaceous, serrate. Root-stock short, slightly creeping, aromatic.—Hedges, woods, shady banks. June, July, August. Perennial. *p.* 9

* See Prefatory Note to the Summary, Series I.

MEADOW SAFFRON, *COLCHICUM AUTUMNALE. Nat. Ord., Melanthaceæ.*—Perianth tubular, rising from a spathe, petaloid, pale purple, six-partite at summit, tube very long and attenuated. Stamens six, perigynous. Ovary with three cells, many-seeded. Styles three, thread-like, very long. Capsule three-valved. Leaves linear-lanceolate, parallel-veined, sheathed at base, radical, eight or ten inches long. Root bulbous. The leaves and fruit are developed in the spring, and die away before the flowers appear.—Meadows and hedgerows. August, September, October. Perennial. *p.* 13.

SCENTLESS MAYWEED, *MATRICARIA INODORA. Nat. Ord., Compositæ.*—Outer florets ligulate, white; florets of the disk numerous, small, yellow, tubular. Receptacle naked, hemispherical. Flower-heads large, and on long, terminal peduncles. Involucre covered with imbricated and scaly bracts. Achene ribbed conspicuously. Leaves two or three times pinnate, with filiform segments, sessile, shining, alternate. Stems rigid, furrowed, spreading.—Waysides and fields. June, July, August, September, October. Annual. *p.* 17.

WOOD SAGE, *TEUCRIUM SCORODONIA. Nat. Ord., Labiatæ.*—Calyx tubular, five-toothed. Corolla irregular, shorter than stamens, monopetalous, five-lobed, upper lip very small. Flowers in pairs in lateral and terminal racemes, having a bract at each pedicel. Stamens four, ascending, parallel, didynamous, two lower ones longer than the others. Stigma two-lobed. Leaves in pairs, much wrinkled, stalked, coarsely serrate. Stems erect, hairy, square. Root-stock creeping.—Woody hill-sides, stony banks. July, August. Perennial. *p.* 21.

CREEPING THISTLE, *CNICUS ARVENSIS. Nat. Ord., Compositæ.*—Florets tubular. Pappus sessile, deciduous, plumose. Receptacle bristly. Achenes compressed, glabrous. Flower-heads rather small, in terminal corymbs, globose. Involucre ovate, scales large, appressed, terminating in slight spine. Leaves alternate, narrow, pinnatifid, spinous, waved, shining, embracing stem. Root creeping. Stems erect, slightly branching.—Fields and roadsides. July, August. Perennial. *p.* 25.

WATER-RAGWORT, *SENECIO AQUATICUS. Nat. Ord., Compositæ.*—Involucre hemispherical, bracts linear. Florets of the ray spreading and conspicuous, bright yellow, ligulate, often rolled back. All florets perfect. Stamens five, having their anthers syngenesious and without bristles at base. Style one, little longer than

corolla, sheathed by anther-tube; stigmas in two rows on bifid style. Flower-heads large, on long stalks, loosely corymbose. Achenes terete, glabrous. Pappus pilose. Leaves lyrate, pinnatifid, serrate, the lower ones undivided; alternate. Stems herbaceous, freely branching.—Damp meadows, sides of water-courses. July, August. Perennial. *p.* 29.

TANSY, *TANACETUM VULGARE. Nat. Ord., Compositæ.*—Flower-heads discoid, numerous. Florets tubular, uniform, homochromous, bright yellow. Inflorescence corymbose. Involucre hemispherical, imbricated. Achene angular. Leaves large, pinnate, each segment deeply toothed and divided, alternate, strongly smelling when bruised. Stem erect, stout. Root-stock large and creeping.—Roadsides and hedgerows. August and September. Perennial. *p.* 33.

WOOD-VETCH, *VICIA SYLVATICA. Nat. Ord., Leguminosæ.*—Calyx gibbous at base. Corolla papilionaceous; white, standard veined with violet. Stamens diadelphous, nine together and one separate. Ovary one-celled. Style one, pubescent; stigma one. Flowers in long racemes. Legume one-celled, two-valved, several-seeded. Leaves alternate, pinnate; six to ten pairs of leaflets, the common petiole ending in a long and branching tendril; leaflets oblong or ovate, and notched at top. Stipules deeply cut. Stem long, weak, climbing by aid of the tendrils.—Open woods in hilly and mountainous districts. June, July, August. Perennial. *p.* 37.

COMMON SOW-THISTLE, *SONCHUS OLERACEUS. Nat., Ord., Compositæ.*—Florets all ligulate, perfect; pale yellow. Receptacle naked. Involucre imbricated with two or more rows of unequal scales, tumid, drum-shaped before flowering, conical afterwards, glabrous. Stamens five; anthers syngenesious. Ovary one. Style one, sheathed by the anthers, filiform, bifid at apex; stigmas on inner surface of bifid style. Achene much compressed, beakless. Pappus soft, filiform. Inflorescence a corymbose panicle. Stems thick, hollow, tall. Lower leaves pinnatifid, with large terminal lobe; upper leaves narrow, lanceolate, slightly lobed, stalkless, clasping stem, all serrate. A variable plant; very freely seeding.—Gardens, rubbish-heaps, waste ground. June, July, August. Annual. *p.* 41.

LEOPARD'S-BANE, *DORONICUM PARDALIANCHES. Nat. Ord., Compositæ.*—Florets collected into one head on receptacle; central florets tubular, outer florets ligulate, numerous. Heads heterogamous. Florets of the ray without a pappus. Receptacle naked. Involucre hemispherical, clothed with double row of equal linear scales. Achene

terete. Flower-heads on long peduncles, few in number. Leaves few in number; radical leaves on long petioles, cordate; intermediate leaves with the petiole expanded at base into two clasping ears; upper leaves clasping and sessile. Stems erect, slightly branching.—Rocks or woods, and as an outcast from gardens. May, June, July. Perennial. *p.* 45.

HERB-ROBERT, *GERANIUM ROBERTIANUM. Nat. Ord., Geraniaceæ.*—Calyx angular, hairy, five-cleft, imbricate in bud, segments erect during flowering, connivent afterwards. Flower of five petals, regular, pink, obovate, entire, clawed. Stamens ten. Ovary five-lobed, five-celled, beaked. Fruit of five carpels. Peduncles two-flowered. Leaves in three or five radiating pinnate segments. Stems much branched. Whole plant hairy and strong-smelling, often turning bright red. Brittle.—Waste ground, hedge-banks, old walls. May, June, July, August, September. Annual. *p.* 49.

WOODY NIGHTSHADE, or BITTER-SWEET, *SOLANUM DULCAMARA. Nat. Ord., Solanaceæ.*—Calyx of five divisions. Corolla monopetalous, regular, cleft into five revolute segments, dull purple. Anthers almost sessile, bright yellow, joined into a cone in the centre of the flower, round the style; stamens, inserted into corolla, five, and alternating with its segments. Inflorescence a loose cyme. Berries ovoid, crimson. Leaves varying in form, entire; lower ones lanceolate; upper ones hastate, petioled. Stems long, flexuous, climbing or straggling.—Low-lying hedges and moist thickets. June, July, August. Perennial, but long trailing stems dying off in winter. *p.* 53.

CORN-COCKLE, *AGROSTEMMA GITHAGO. Nat. Ord., Caryophyllaceæ.*—Calyx tubular, monophyllous, the five linear lobes projecting very conspicuously beyond the corolla; coriaceous, deeply furrowed, hairy. Corolla regular; petals large, broad, undivided, purplish-red, without scales, clawed. Flowers on long peduncles, growing singly from axils of leaves. Stamens ten. Petals and stamens hypogynous. Ovary one. Styles five. Capsule one-celled, opening in five teeth. Leaves opposite, entire, narrow, hairy. Stems tall, erect, very slightly branching, hairy, swollen at nodes.—Corn-fields. June, July, August. Perennial. *p.* 57.

HEART'S-EASE, or PANSY, *VIOLA TRICOLOR. Nat. Ord., Violaceæ.*—Calyx of five sepals, produced at base. Petals five, unequal, the lowest produced into a spur; very variable in colour. Stamens five, filaments very short; anthers connate, two of them spurred, on

inner broad surface of filaments. Style single, clavate ; stigma large, capitate. Ovary one-celled, with three parietal placentas. Fruit capsular, three-valved. Stipules very large, foliaceous, deeply divided into linear lobes, crenate. Leaves oblong, deeply crenate. Stem weak, angled, branching freely.—Cultivated fields and waste ground. May, June, July August, September. Annual or biennial. Very variable. *p.* 61.

SHINING CRANE'S-BILL, *GERANIUM LUCIDUM. Nat. Ord., Geraniaceæ.*—Calyx angular, pyramidal, of five sepals. Petals five, clawed, small ; delicate pink. Peduncles two-flowered. Stamens ten—five long, five short ; anthers conspicuous, bright yellow. Styles five. Ovary five-lobed, five-celled. Fruit with five lobes, the carpels arranged round central axis, curling upwards when ripening ; a long beak. Leaves orbicular, palmately lobed, lobes obtusely notched, on long stalks, opposite, very glossy, often (like the stems) turning a bright red. Stems spreading, glossy, swelling at the joints, brittle.—Rocks, old walls. May, June, July, August. Annual. *p.* 65.

RAGGED ROBIN, *LYCHNIS FLOS-CUCULI. Nat. Ord., Caryophyllaceæ.*—Calyx tubular, ribbed, monophyllous, five teeth, brownish-red. Corolla regular, of five petals, very deeply cut into lobes ; clawed ; appendage at base of limb. Petals and stamens hypogynous. Flowers in loose terminal panicle. Stamens ten. Styles five. Ovary one. Capsule stalked, globular, opening by five teeth. Seeds numerous. Leaves few, linear-lanceolate, entire, opposite, exstipulate. Stems erect, slender, swelling at nodes.—Damp meadows, sides of water-courses. May, June. Perennial. *p.* 68.

SNOWDROP, *GALANTHUS NIVALIS. Nat. Ord., Amaryllidaceæ.*—Perianth in six divisions, the three inner being shorter than the alternate three ; outer ones white, oval, spreading ; inner ones pendant, emarginate, white tipped with green. All the segments quite distinct down to the ovary. Stamens six ; filaments very short, inserted at the base of the segments ; anthers opening at the top. Style one ; stigma three-lobed. Ovary three-celled. Fruit a capsule, three-valved, numerous seeds. Flowers spring from a spathe, singly. Leaves radical, two, linear, parallel-veined, short and erect at flowering-season, but afterwards growing considerably, and becoming drooping. Bulbous root.—Woods, orchards, hedges. February, March. Perennial. *p.* 69.

SNOWFLAKE, *LEUCOJUM ÆSTIVUM. Nat. Ord., Amaryllidaceæ.*—Perianth in six nearly equal segments, campanulate, drooping, pure white tipped with green, ovate, broad. Stamens six, inserted in base of segments; anthers large, opening inwards near the apex. Style one, club-shaped; stigma three-lobed. Ovary three-celled. Fruit a capsule. Scape flattened in cross-section. Inflorescence, four or five flowers springing from a spathe. Leaves long, linear, parallel-veined, all radical, fleshy, keeled. Root bulbous.—Moist meadows. April, May. Perennial. *p.* 70.

MEADOW VETCHLING, *LATHYRUS PRATENSIS. Nat. Ord., Leguminosæ.*—Calyx oblique, upper segments shortest. Corolla papilionaceous: yellow. Stamens diadelphous. Inflorescence a raceme. Style one; stigma one. Ovary one-celled. Fruit a pod or legume, two-valved, many-seeded, glabrous. Stipules large, sagittate. Leaflets lanceolate, in pairs. Tendrils long and branched, terminating leaf-stalk. Stem angled, weak, much-branched, climbing.—Hedges, in damp meadows, and low-lying pastures. July, August. Perennial. *p.* 73.

GREATER CELANDINE, *CHELIDONIUM MAJUS. Nat. Ord., Papaveraceæ.*—Calyx of two sepals, falling away on expansion of flower. Petals four, oval, bright yellow, crumpled. Stamens numerous. Stigma two-lobed, small. Ovary linear. Pod long and narrow, opening in two valves from the base. Seeds crested. Flowers in umbels on long stalks. Stem and leaves slightly hairy, full of a yellow and very acrid juice: stems brittle. Leaves pinnate, segments ovate, decurrent, coarsely lobed, crenate.—Waste ground and hedge-banks: May, June, July, August. Perennial. *p.* 77.

GROUND IVY, *NEPETA GLECHOMA. Nat. Ord., Labiatæ.*—Calyx tubular, ribbed, five-toothed, the upper teeth the longest, recurved. Corolla monopetalous, upper lip bifid, lateral lobes, spreading, purplish blue, tube of corolla twice as long as calyx. Stamens four, the two upper ones the longest. Stigma two-lobed. Flowers four to six, in unilateral whorls, springing from the axils of the leaves, stalked. Stem square. Leaves in pairs, reniform, crenate, stalked, downy, dark green, the lower leaves on much longer stalks than the upper. The whole plant rather rough and hairy to the touch, strong-smelling, creeping and rooting at the base, stretching some distance: flowering stems ascending; branching freely.—Hedges and waste ground. March, April, May. Perennial. *p.* 81.

PRICKLY-HEADED POPPY, *PAPAVER ARGEMONE. Nat. Ord., Papaveraceæ.*—Calyx of two sepals, falling off on flowering. Corolla of four petals; pale scarlet, and often with a dark spot at base. Stamens very numerous, distinct, dark in colour. Ovary one-celled. Stigma rayed, sessile. Fruit a capsule, oblong, having several short, bristly hairs, especially on upper half. Leaves alternate, pinnatifid. The whole plant somewhat hairy.—Corn-fields and waste ground. May, June, July. Annual. *p.* 85.

HEATHER, *ERICA CINEREA. Nat. Ord., Ericaceæ.*—Calyx of four small and narrow sepals, persistent. Corolla ovoid, four-lobed, crimson, drooping. Flowers in dense terminal racemes, whorled. Stamens eight: anthers two-celled. Style and stigma one. Fruit capsular, four-celled. Leaves generally three in a whorl, having fascicles of small leaves in their axils; linear, dark green. Stem grey and wiry. Growth bushy.—Dry wastes, commons, mountain-sides. July, August, September. Perennial. *p.* 89.

DOVE'S FOOT CRANE'S-BILL, *GERANIUM MOLLE. Nat. Ord., Geraniaceæ.*—Calyx of five persistent sepals. Corolla regular, five deeply-notched, heart-shaped petals, clawed, pink, fugacious. Stamens ten, alternately long and short. Ovary five-lobed, terminating in long awn or beak. Stigmas five. Flowers in pairs on peduncles. Leaves round, deeply lobed, hairy: lower leaves numerous, on long stalks, freely-lobed; upper leaves fewer, smaller, less cut into segments. Stems weak, spreading, often red in colour, hairy.—Dry pasturage, banks, and roadsides. May, June, July, August. Annual. *p.* 93.

CENTAURY, *ERYTHRÆA CENTAURIUM. Nat. Ord., Gentianaceæ.*—Calyx five-cleft, half as long as tube of corolla, persistent, segments linear. Corolla regular, infundibuliform, pink, limb five-cleft, spreading, stellate. Stamens five. Anthers twisted. Stigmas two. Inflorescence paniculate. Capsule linear, two-celled. Stem-leaves opposite, exstipulate, ovate, oblong. Root-leaves spreading, broader than those of the stem. Stem erect, nearly simple, glabrous. Whole plant bitter to taste.—Dry pastures. June, July, August, September. Annual. *p.* 97.

ORPINE, *SEDUM TELEPHIUM. Nat. Ord., Crassulaceæ.*—Calyx minute, fleshy, five-pointed segments. Corolla regular, of five lanceolate acutely-pointed, pink, flat, widely-extended petals. Stamens

ten ; anthers conspicuous. Inflorescence corymbose, dense, terminal. Ovaries five, verticillate, one-celled. Leaves numerous, upright, sessile, ovate, serrate, smooth, fleshy. Stalks numerous, erect, clustered, unbranched, round, solid, spotted with red.—Borders of fields, waste places, hedge-banks. July, August. Perennial. *p.* 101.

SWEET BRIAR, *ROSA RUBIGINOSA. Nat. Ord., Rosaceæ.*—Calyx tube ovoid ; calyx segments, five in number. Corolla of five petals, pink, fragrant. Flowers often solitary. Stamens numerous. Achenes numerous. Fruit pear-shaped. Leaves pinnate, glandulose, fragrant, small, much-toothed, stipulate. Stem prickly. Bush or shrub.—Hedges and thickets ; often cultivated. Perennial. Flowering throughout summer. *p.* 105.

LARGER KNAPWEED, *CENTAUREA SCABIOSA. Nat. Ord., Compositæ.*—Florets of the disk perfect ; florets of the ray large, funnel-shaped, spreading, irregular, neuter ; all the florets purple. Involucre large, ovate, imbricated, the scales green, with a very conspicuous black fringe. Receptacle bristly. Stamens five ; anthers large, purple, syngenesious. Style one, sheathed by the anthers, filiform, bifid at apex ; stigmas on inner surface of bifid style. Achenes glabrous ; short pappus. Stem strong, wiry, freely branching. Leaves long, deeply pinnatifid ; lobes lanceolate, coarsely serrate.—Roadsides and poor pastures. July, August, September. Perennial. *p.* 109.

LESSER RED-RATTLE, *PEDICULARIS SYLVATICA. Nat. Ord., Scrophulariaceæ.*—Calyx angular, glabrous, persistent, inflated, teeth foliaceous, segments five, unequal. Corolla monopetalous, irregular, deciduous, ringent, open at throat ; upper lip compressed and arched ; lower one flat and three-lobed. Stamens four, didynamous, two of them hairy. Style one. Stigma two-lobed. Capsule two-celled, compressed ; seeds angular. Leaves, alternate, pinnate, deeply-serrated. Stem branched and spreading.—Moist pasturage and waysides. April, May, June, July. Perennial. *p.* 113.

SEA-LAVENDER. *STATICE LIMONIUM. Nat. Ord., Plumbaginaceæ* —Calyx tubular, expanded at top ; five-lobed ; dry and membranaceous. Corolla of five petals, united at their bases, and carrying the stamens ; petals a bluish purple. Stamens five. Ovary single, one-cell. Styles and stigmas five. A small bract below each flower. Inflorescence unilateral, spikes forming paniculate, corymbose masses of blossom. Flower-stem erect, freely branching, leafless.

Leaves radical, obovate, lanceolate, on long stalks; dark-green, glossy, thick in texture.—Salt-marshes and mud-covered shores. July, August, September. Perennial. *p.* 117.

HEDGE CALAMINT, *CALAMINTHA CLINOPODIUM. Nat. Ord., Labiatæ.*—Calyx tubular, two-lipped, thirteen-veined, nearly equal at base, five acute teeth. Corolla monopetalous, hypogynous, irregular; upper lip straight, nearly flat, three-lobed; lower lip two-lobed. Flowers in dense, sessile whorls in the axils of the leaves. Stamens four, the two anterior the longest. Ovary one, four-lobed. Stigma two-lobed. Bracts linear, numerous. Stem square in section, weak. Leaves opposite, ovate, stalked. Slightly serrate, soft to the touch.—Hedges, borders of copses. July, August, September. Perennial. *p.* 121.

RAG-WORT, *NECIO JACOBÆA. Nat. Ord., Compositæ.*—Calyx adherent with ovary. Florets all perfect. Involucre having one row of equal scales, and a few smaller ones at base. Stamens five. Anthers syngenesious, ecaudate. Ovary one. Style one, sheathed by anther-tube, bifid at apex. Stigmas on inner surface of the two branches of style. Receptacle naked. Heads of flowers in corymbs. Fruit an achene, terete, pappus, pilose. Leaves pinnate or pinnatifid, lyrate, very variable in form and size, segments toothed, glabrous. Stems erect, striate, branched near the summit.—Roadsides, waste ground, neglected meadows. July, August, September. Perennial. *p.* 125.

FIELD THISTLE, *CARDUUS ACANTHOIDES. Nat. Ord., Compositæ.*—Florets all equal, crimson, tubular. Receptacle large, having bristles between the florets. Achenes glabrous. Pappus of simple hairs. Flower-heads often slightly drooping, globose, aggregated. Involucre globose, clothed with linear, imbricated, sharply-pointed bracts. Leaves pinnatifid, spinous, decurrent. Stem erect, prickly, and fringed with decurrent bases of leaves.—Waste lands and way-sides. June, July, August. Annual. *p.* 129.

TUBEROUS PEA, *OROBUS TUBEROSUS. Nat. Ord., Leguminosæ.*—Calyx five-toothed, obtuse at base, oblique at mouth. Corolla papilionaceous, purple, veined. Style linear. Stigma one. Stamens ten, diadelphous. Legume two-valved, several-seeded, long, pendulous, black, cylindrical. Leaves pinnate, without tendrils, stipulate, three or four pairs of leaflets. Stipules sagittate. Flowers in axillary racemes, borne on long peduncles. Stem winged. Root tuberous.—Woods and copses. May, June, July. Perennial. *p.* 133.

RED BARTSIA, *BARTSIA ODONTITES. Nat. Ord., Scrophulariaceæ.*—Calyx tubular, dull red, quadridentate, hirsute, teeth equal and sharp. Corolla monopetalous, ringent, irregular; upper lip convex and notched; lower lip divided into three equal obtuse segments. Stamens four, didynamous, unequal. Style filiform, at first beneath upper lip of corolla, but afterwards longer. Stigma two-lobed. Fruit an oval, oblong, compressed capsule, two-celled, many-seeded. Inflorescence, numerous long, erect, racemes, often nodding at summit, and having the blossoms thrown out in one direction. Bracts lanceolate, upright, dull purplish. Leaves opposite, sessile, lanceolate, turning back, slightly serrate, hirsute. Stem upright, freely branching, hirsute, square.—Corn-fields, roadsides, and waste ground. June, July, August. Annual. *p.* 137.

MILK THISTLE, *CARDUUS MARIANUS. Nat. Ord., Compositæ.*—Flower-heads on summits of branches, large, purple; florets perfect, infundibuliform, with curved tube, segments five, equal, linear. Filaments short, monodelphous; anthers purple. Ovary ovate, surmounted by filiform style. Stigma bifid. Receptacle pilose. Fruit angular, wrinkled, crowned with simple and rigid pappus. Involucre of many imbricate and recurved scales, spinous at apex and on margins, subfoliaceous. Leaves large, alternate, sinuate, spiny, veined with white; lower leaves spreading, pinnatifid; upper ones waved, amplexicaul, ovate-lanceolate. Stems erect, firm, branched, striate.—Hedges, banks, rubbish-heaps. June, July. Biennial. *p.* 141.

HEDGE STACHYS, *STACHYS SYLVATICA. Nat. Ord., Labiatæ.*—Calyx sub-campanulate, five-toothed, ten-ribbed. Corolla monopetalous, hypogynous, irregular, tubular, upper lip erect, entire, concave; lower lip lobed and spreading. Flowers in whorls, forming terminal spikes. Stamens four, two larger than the other two. Ovary one, deeply four-lobed. Stigma two-lobed. Achenes four. Leaves opposite, large, cordate, crenate, stalked, hairy. Strongly smelling. Root-stock creeping. Stem hairy, square in cross section.—Woods and shady banks. June, July, August. Perennial *p.* 145.

CORN BLUE-BOTTLE, *CENTAUREA CYANUS. Nat. Ord., Compositæ.*—Flower-heads capitate; flowers tubular, five-toothed. Florets of the ray few, large, bright blue, infundibuliform, neuter; florets of the disk, small, dark purple, fertile. Stamens five, inserted on corolla. Filaments distinct, anthers united. Ovary adherent to calyx. Style single, sheathed by anthers. Stigma bifid. Fruit an

achene, with simple pappus. Seed solitary. Involucre covered with imbricated brown scales. Leaves alternate, long dull green; lowering, with numerous fibrous tufts.—Waste places, hedgerows. July, August, September. Perennial. *p.* 149.

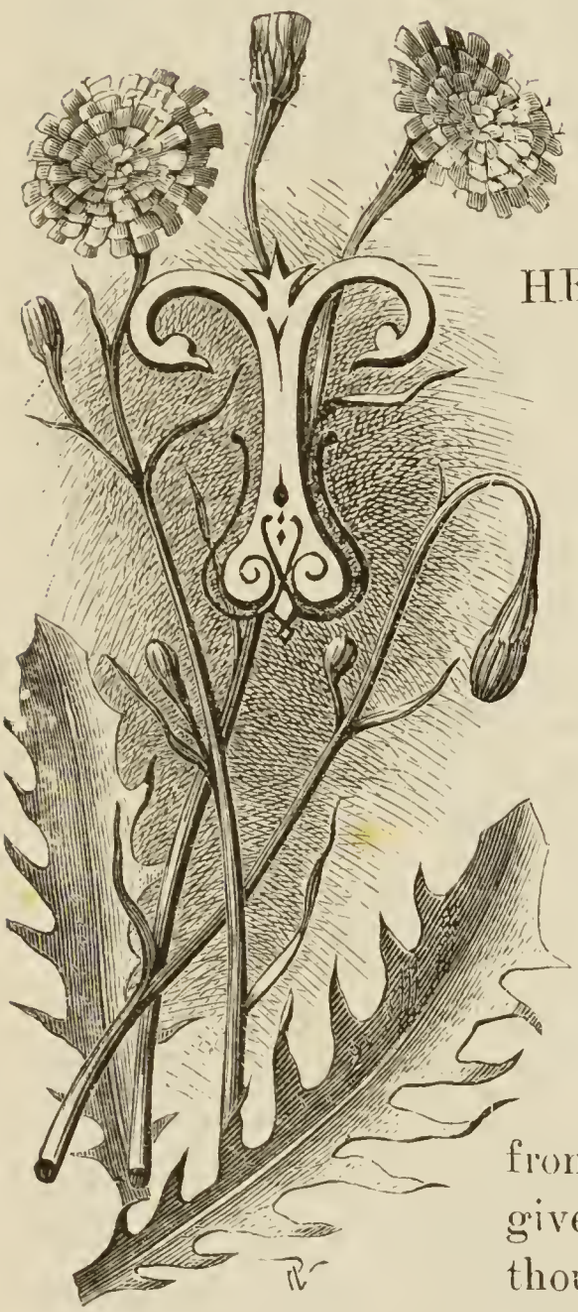
FRITILLARY, *FRITILLARIA MELEAGRIS. Nat. Ord., Liliaceæ.* —Perianth petaloid, campanulate, of six distinct pieces; nectariferous depressions at base: ordinarily chequered, but sometimes white. Stamens six, inserted at base of perianth. Style one, three-cleft at apex. Fruit dry, capsular, three-celled. Stem single-flowered. Leaves linear-lanceolate, alternate, parallel-veined. Root bulbous.—Meadows. April, May. Perennial. *p.* 153.

WATER FIG-WORT, *SCROPHULARIA AQUATICA. Nat. Ord., Scrophulariaceæ.*—Calyx persistent, five-lobed. Sepals having membranous margin. Corolla monopetalous, irregular, deciduous, globose; two short lips, one two-lobed and straight, the other three-lobed, and having central lobe decurved, dull purple. Stamens four, didynamous. Style one. Stigma two-lobed. Flowers in terminal and long panicles. Capsule two-celled, two-valved. Leaves glabrous, opposite, cordate-oblong, obtuse, crenate; bracts small and linear. Stem erect, winged. —By the sides of water-courses. June, July, August, September. Perennial. *p.* 157.



AUTUMNAL HAWKBIT.

FAMILIAR WILD FLOWERS.



THE AUTUMNAL HAWK-BIT.

Apargia autumnalis. Nat. Ord., Compositæ.

THE plant we have here figured is one of the most common of several very similar-looking herbs. It is a perennial, and abundantly distributed throughout Britain in meadow land, and on commons and other such waste spaces of ground. It flowers about August.

The autumnal hawk-bit has several long and spreading radical leaves that are divided into more or less regular lateral lobes, and are sometimes thickly covered with stiff hairs, that, from their number and grey colour, give a kind of bloom to the leaf, though at other times the leaves are almost or entirely destitute of them. From this ring of leaves the flower-stems rise boldly up, and then presently branch off into two or three peduncles that bear the flower-heads. These are ordinarily quite destitute of hairs, but have at intervals

sow-thistle, the subject of the present plate, and the nipplewort.

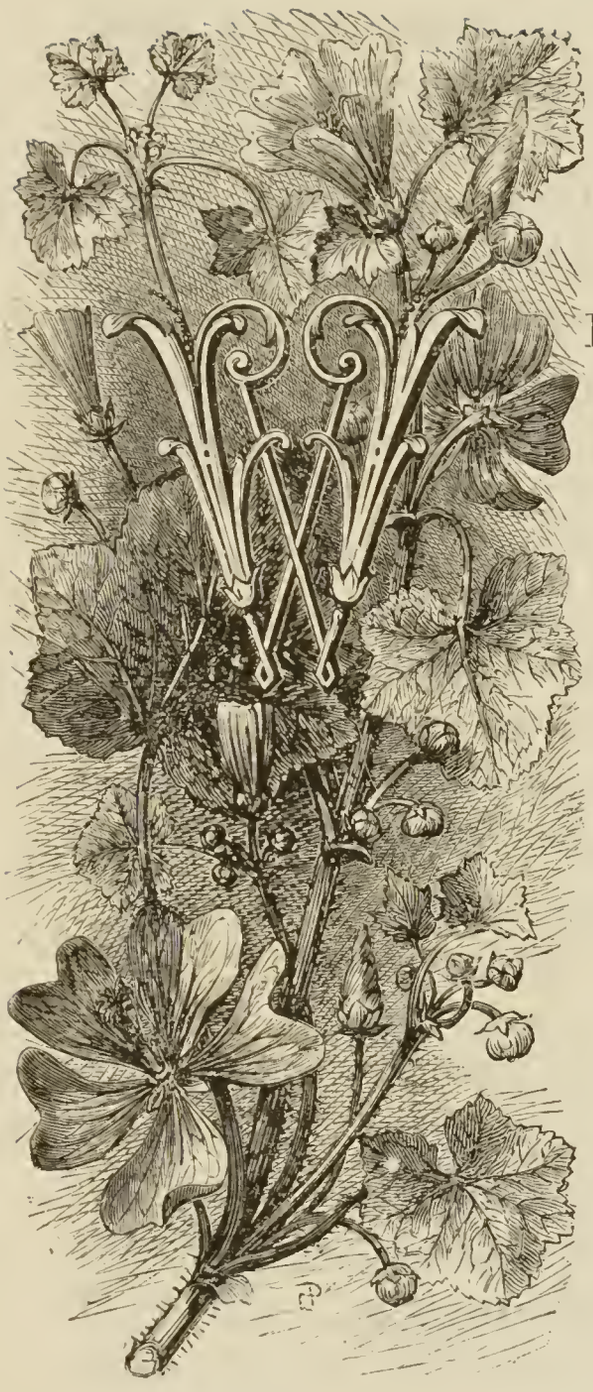
The third great section is that wherein each flower-head contains both types of flower. In this case the tubular flowers are always in the centre, and are called the florets of the disk, while the ribbon-like forms constitute the outer ring, and are called the florets of the ray. For examples of this type the reader may turn to the daisy, the ox-eye, the rag-wort, the mayweed, or the yarrow.

In the first of these divisions the florets are generally purple, in the second they are almost always yellow, while in the third the disk is ordinarily yellow, and the rays white.





COMMON MALLOW



THE COMMON MALLOW.

Malva sylvestris. Nat. Ord., Malvaceæ.

WE have some six or seven plants called mallows, indigenous to Britain, but of these the plant represented is by far the most common in almost all localities. It appears to thrive equally well in all geological formations, and throughout England and Ireland is of very frequent occurrence, few waste places or wayside banks being unclothed with its large masses of foliage. In Scotland it is, however, by no means common, and in the northern part is almost if not quite unknown. It will ordinarily be found in flower by about the beginning of June, after which date it may be met with in profusion until the end of September, and isolated specimens will be occasionally met with even up till December if the season be mild.

All our mallows agree in several conspicuous points, and

in vigorous life and covered with blossoms, and barely a foot high altogether. The stems and leaves are often thickly clothed with soft hair. The leaves are all borne on long stalks, and are divided into five or seven broad and rounded lobes. The outline is serrate. The flowers grow in clusters of half a dozen or so from the axils of the leaves. The petals are heart-shaped, reddish-purple in colour, and veined by two or three rather conspicuous lines of a darker tint of the same colour. The flowers vary somewhat in strength of colour; in some plants the tint is much deeper than in others, but beyond this the plant is very little subject to any great variation, and no difficulty, we imagine, will ever be felt by any of our readers in its identification. The plant is often called the marsh mallow in country districts. The marsh mallow is, however, another and much less common plant, and we can only conclude that "apt alliteration's artful aid" has exercised a certain fascination, and has in this case, at least, proved a snare.





COMMON AVENS AND MEADOW-BARLEY.

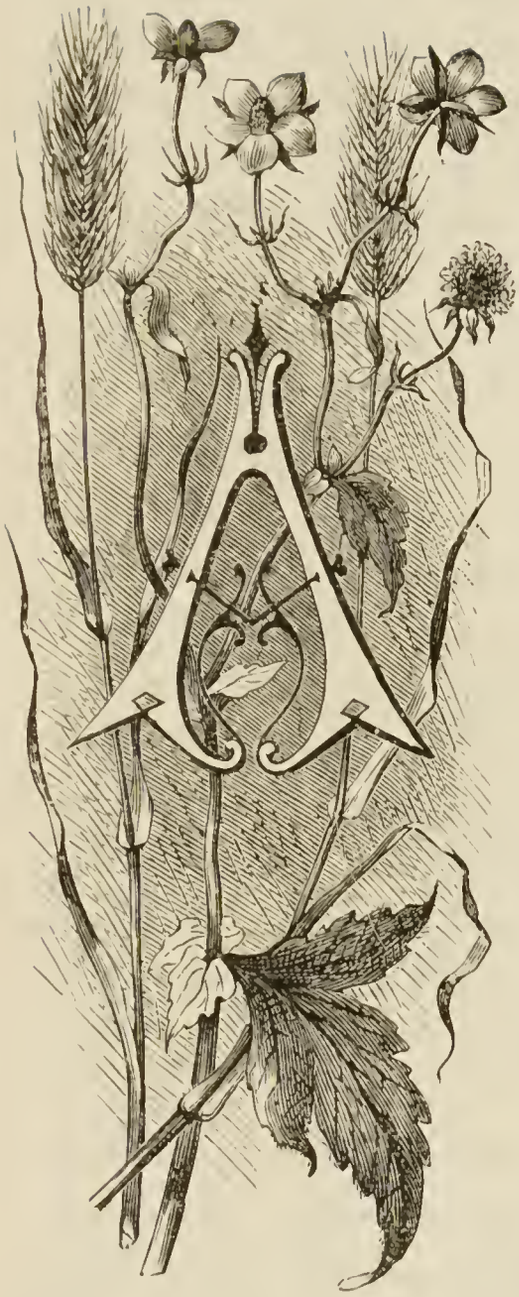
THE COMMON AVENS.

Geum urbanum. Nat. Ord., Rosaceæ.

AND

MEADOW BARLEY.

Hordeum pratense.



AMONGST the rank vegetation of the hedgerow the wood or common avens—the plant represented in flower in our illustration—will very commonly be found, and more especially if the situation be somewhat damp and shaded from the too direct rays of the sun; hence, too, it is very frequently met with in woods and coppices. It is a perennial, and may therefore be looked for year after year in any spot where it has once been noticed. It will ordinarily be found in flower by about the beginning of May, after which date examples more or less numerous may be met with until late in autumn. We have twice found it as late, indeed, as the first week in December.

The common avens is the *Geum urbanum* of the systematic botanist. The generic title is taken from the Greek, and signifies that which is aromatic. The roots of the present species possess an agreeable odour and

taste, and have on this account been sometimes employed in culinary operations. In old herbals the plant is often called the herb-bennet, a name that sprang from the beneficent nature of the plant, since it was not only, according to the monks, a herb of potent might in the assuaging of bodily pains, but a very present and effectual help in things spiritual, against the wiles of evil spirits or the influence of wicked men. As a corruption of the monkish title, it is sometimes called herb-bonnet, a name quite meaningless in itself, but a fair illustration of the way in which, when a name ceases to be understood, it becomes perverted into something else that is at least English in sound though devoid of sense. As an example of this, we may quote the case of the *Hypericum androsæmum*, which in the Middle Ages was known as the *toute saine*, but which in many parts of England is now called touchen-leaf. Its ordinary book name is tutsan, an evident corruption of the old monkish term. Many other instances—and some of them very curious in the transition undergone—might readily be given, did the limited space at our disposal justify our wandering at will into those pleasant by-paths.

Though the medical virtues of the avens were held in such high esteem as to make it pre-eminently the *Herba benedicta*, modern experience has not confirmed the high opinion thus held. It is slightly astringent, and the roots have been at times used to add a special and distinctive flavour to ale, and from a belief that it prevented it from turning sour. As is the case with all plants, whatever properties it may possess vary greatly under various circumstances of growth and at various stages of the plant's history ; but in the present plant, under any cir-

cumstances, these properties seem to be but of little real value as remedial agencies.

We pass now to some few words of description of the more salient features of the growth of the plant. The stems thrown up are but few in number, somewhat thin and wiry-looking, from one to two feet in height, and almost destitute of hairs. The stipules—the leaf-like members that in many plants occur at the junction of the true leaf with the stem—are in the avens very large, rounded in form, and deeply cut in outline. The leaves vary very considerably in form, according to their position. The upper leaves are made up of three long and narrow leaflets. Those intermediate on the stems have the three leaflets or segments as well, but in these they are round and full; while the lower leaves are borne on long stalks, have a large terminal leaflet, and a series of smaller ones given off at intervals along the stalk. These smaller leaflets vary very considerably in size. There will ordinarily be two or three pairs of considerable size, and between these a number of very small ones. The same curious type of leaf may be seen in the silverweed, the subject of one of our illustrations; the agrimony, which we have also figured; the meadow-sweet, and several other plants. All the leaves, irrespective of their position on the plant, are coarsely toothed in outline. The flowers of the avens are deep yellow, and rather small for the general growth of the plant. The corolla is composed of five spreading petals, and, when fully expanded—like the blossom of the pimpernel—forms a flat disc. The calyx is cleft into ten segments, the alternate members much larger than the others—a feature that may be very well seen again in the silverweed or the strawberry. The fruit that succeeds

the blossom is of a dark crimson colour, and the various members of which it is composed terminate in an awn, of which the extremity is curved into a little hook.

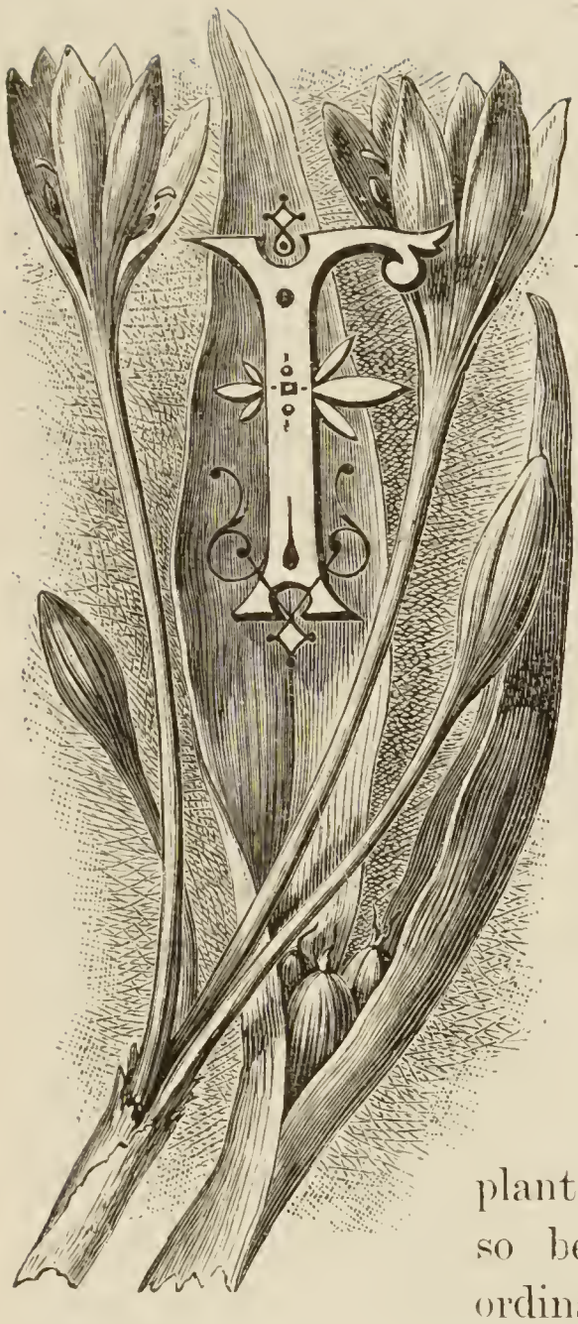
The only other indigenous plant in the genus is the *Geum rivale,* or water-avens, a plant of the moors and marshes, a lover of wet, swampy ground—one of the plants that fringe our river-banks. Though not by any means a rare plant, it is not so common as the wood-avens, and is much more local in its occurrence. The general character of the leaf is much the same, but the plant may readily be identified by its large, drooping, dull orange blossoms and sombre purple calyx.

The grass represented in our illustration is the *Hordeum pratense,* or meadow barley, a plant abundant enough in moist meadows in England, though it is very rarely met with in Scotland, and is by no means common in Ireland. It may very legitimately be introduced in our plate, as it is amongst the long grass that fringes the hedgerow that the avens delights to grow, and where the avens is found the meadow barley will ordinarily be close at hand.





MEADOW SAFFRON.



MEADOW SAFFRON.

Colchicum autumnale. Nat. Ord., Melanthaceæ.

FEW of our flowers are more delicately beautiful than the meadow saffron. Its refined colour is too pale for an altogether satisfactory representation on our white paper, but those who have seen it springing up amongst the grass of the pasture or the weeds of the hedgerow will scarcely have failed to have noticed and admired its delicate and fragile grace. This "leafless orphan of the year," much as we may admire it, is a most unwelcome plant to the farmer, and the more so because if found at all it is ordinarily abundant. We have in some places seen quite a purple flush of colour on the meadows from the presence of countless blossoms, but it is a sad blot on the pasturage to the eye of the owner, for it takes the place of much that might be edible. Though animals ordinarily carefully shun it, many instances have

occurred of fatal result to horses and cattle from an imprudent neglect of the warning instinct, and an indulgence in "the baneful juice which poisonous Colchian glebes produce."

The meadow saffron derives its generic name from Colchis, where it was said to be found abundantly, and where its medicinal properties were first discovered; while the specific name clearly indicates the date of its flowering. The familiar name indicates its resemblance to the true saffron, the *Crocus sativus* of botanists. The meadow saffron is a somewhat local plant, being found in profusion in some districts of England and Ireland, while others may be searched in vain; in Scotland it seems to be distinctly a rare plant. The feature that will at once strike even the most unobservant is that it is absolutely leafless at the time when its lilac blossoms render it most conspicuous, so that we may gather a handful of flowers, but any verdant additions we may deem our nosegay to require must come from another source. The flowers rise from the ground to a height of some four or five inches, supported on the slender tube that rises from the subterranean bulb. The lower part of each blossom is enclosed in the membranous sheath that enwraps them all. After the season of flowering, the leaves appear, and then the seed-capsule, but all withers again before the recurring autumn blossoms. The leaves are by no means inconspicuous, for they often attain to a length of nine or ten inches, and have a breadth of over an inch; but as one never finds the leaves and flowers together, this verdant spring foliage is naturally not often associated in people's minds with flowers that will make no sign until all this show of foliage has died away. The ovary is within the tube of the flower, but so low down as to be

subterranean, and those who would desire to see the plant in its entirety will need to gather it with due care. The long, slender, almost thread-like styles that run the whole length of the floral tube are an interesting feature that a hasty gathering of the flowers is very likely to destroy. The general habit of the plant suggests the crocus, but the organs of reproduction differ considerably from those of that genus, and amply warrant its removal from it. The *Crocus nudiflorus*, or naked crocus, so called from its blossoms being thrown up from the ground in autumn, after the leaves have withered, furnished Paley, in his "Natural Theology," with a good illustration of what he terms compensation. As all he says is equally true of the present plant, we may be forgiven a quotation. He writes: "I have pitied this poor plant a thousand times. Its blossom rises out of the ground in the most forlorn condition possible, without a calyx, or even a leaf, to defend it; and that, not in the spring, not to be visited by summer suns, but under all the disadvantages of the declining year. When we come, however, to look more closely into the structure of this plant, we find that instead of its being neglected, Nature has gone out of her course to provide for its security, and to make up to it for all its defects. As this plant blossoms late in the year, and probably would not have time to ripen its seeds before the access of winter, which would destroy them, Providence has contrived its structure such that this important office may be performed at a depth in the earth out of reach of the usual effects of frost. The maturation of the seed, which in other plants is exposed with the rest of the flowers to the open air, is here carried on during the whole winter within the heart, as we may say, of the earth."

The bulb of the meadow saffron has for ages had medicinal repute, and on turning to the modern Pharmacopœia, we find various preparations of the plant duly set forth. The bulb should be gathered during July and August, its period of greatest activity; but Dr. Lindley says that he has seen many hundredweights sent up to town after the flowering-season, the flowers being broken off to conceal the fraud. We see at once that while it would be very difficult to find it in the interval between the dying of the leaves and the springing of the flowers, any one could collect the bulbs when they were guided to them by the blossoms. Colchicum is irritant in its effects, and in large doses is an acrid poison; and while it has a distinct value in allaying paroxysms of pain, the relief is perhaps bought at too high a price, as its general effect on the system is hurtful. Both the bulb and the seeds are used in medical practice. In France it is called Mort au Chien.





SCENTLESS MAYWEED



THE SCENTLESS MAYWEED.

Matricaria inodora. *Nat. Ord., Compositæ.*

WE have in Britain several species of the great composite family all of which bear a certain general similarity to the plant figured in our present illustration, though a very slight amount of investigation and comparison will, we do not doubt, suffice to enable our readers to decide accurately as to the probable identity of any likely-looking plant with the subject of our plate. In some of these allied plants the foliage is much fuller in character than that of the present species; in others, the large yellow disk is not so convex and ball-like; in some, again, the white rays are more erect; while in others a strong scent, sometimes pleasant, but more ordinarily disagreeable, makes itself very perceptible.

The scentless mayweed may be very commonly met with in fields, by the way-sides, and springing up freely amidst rubbish-heaps and on any patch of waste ground. It flowers throughout the whole summer and late into the

autumn months. The plant is an annual, very spreading and branching in its growth, and attaining ordinarily to about a foot in height, though, like most way-side plants, it varies a good deal in this respect, according to the poorness of the soil, the absence of moisture, and several other conditions that are powerful either to aid or mar its development. The leaves are pinnate, or feather-like in character, and many of the segments have smaller lateral segments given off from them; a form known botanically as bi-pinnate, or twice pinnate. All the divisions of the leaf are very narrow in proportion to their length, and cross and recross in such appearance of inextricable confusion, that it is only by isolating a few from the mass of foliage that the plant bears that their true form can be satisfactorily identified. The leaves spring directly from the main stems; there is no intervening leaf-stalk. The flower-heads are larger than in many of the plants of which we have spoken as bearing some little resemblance to the present species, and are borne singly at the ends of long terminal flower-stems, or peduncles. The central part, composed of the florets of the disk, is a deep yellow in colour, hemispherical in form, and very prominent. The outer florets have very conspicuous white rays, these being much larger in proportion to the disk than in most of the allied species, and lack somewhat of the firmness of appearance that is seen in the corresponding part in the feverfew, for example, where the rays are much broader as compared with their length, and stand around the disk with an appearance of vigour that the present species appears somewhat to want. A rather marked variety of the plant is sometimes found by the sea-shore, and especially in the north; in this the leaves are somewhat broader and fleshy, and succulent in appearance,

and the flower-heads smaller. From the locality in which it is found it is either considered as *Matricaria inodora, var. maritima,* or by other botanists, who raise it to the rank of an independent species, it is called *Matricaria maritima.*

The scentless mayweed owes its generic name, *Matricaria,* to its reputed medicinal properties, while the specific name, *inodora,* signifies scentless. Though, compared with several of its allies, it may almost be termed scentless, the term is not strictly appropriate, as a slightly aromatic odour is yielded, while the name mayweed is equally inaccurate if really criticised. It appears to us at least somewhat of a misnomer to call a plant that yields some little aroma, and that may be met with in flower throughout the whole of the summer and autumn, the scentless mayweed. The plant is by some botanists called the *Chrysanthemum inodorum,* by others the *Pyrethrum inodorum,* names that in themselves sufficiently indicate the slight points of difference between this and some few other species, and that lead botanists therefore to place it sometimes in one genus, sometimes in another.

The medicinal properties of the present plant seem to be of a very slight character. An allied species, the *Matricaria Parthenium,* possesses a certain bitter and tonic principle that has been at times pressed into the service of the healing art, while its common English name, the feverfew, points to the old belief in its efficacy; the significance being that fever patients need be but few in number were the virtues of this plant sufficiently appreciated and utilised. The little crimson-tipped daisy and the ox-eye are very near relations, as the general appearance of the plants would lead one readily to suppose, and the milfoil,

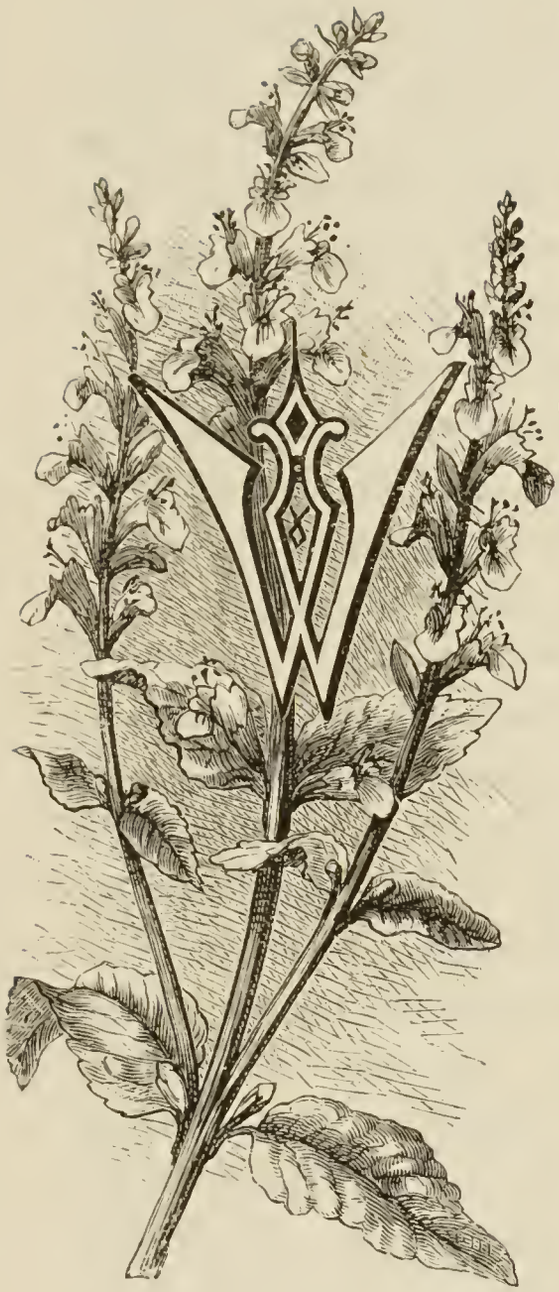
or yarrow, is another close connection, as the form of its flower-heads equally clearly testifies.

One of the plants that most strongly resembles this may be readily distinguished by its odour, which is so strong as to have procured the plant the name of the stinking mayweed. It is botanically the *Anthemis Cotula;* it flowers as freely and as long and in the same localities as the scentless mayweed. The true camomile, or *Anthemis nobilis*, is another very similar-looking herb. Its intensely bitter taste and highly aromatic odour will amply suffice to identify it. It is a plant still held in medicinal repute; it may often be found in dry, gravelly pastures, and on heaths and other open waste spaces in England; it is less common in Ireland and Scotland.





WOOD SAGE.



WOOD-SAGE.

Teucrium scorodonia. Nat. Ord., Labiatæ.

WOOD-SAGE, or as it is often termed, the sage-leaved germander, delights in woody and hilly situations where the soil is dry and stony, and in such places it may very commonly be found throughout Great Britain and Ireland. It may frequently be met with, too, on stony hedge-banks that face towards the sun, and which often from the poorness of the soil supply little else of botanical interest. We are very familiar with the plant, and we may recall two typical situations in which we found it. One of these was near a quarry in the north, the rocky hillside broken into picturesque masses by the blasting operations, and all the undisturbed portions bearing a rich growth of oak and fir. With the exception of a little fern, the whole ground wherever a plant could fasten was thickly covered with the wood-sage, the greyish-green of the leaves giving a

peculiar bloom to the hillside, and contrasting finely with the rich colour of the rock and the brilliant tint of the oak foliage, as the sun shone through the leaves and turned them emerald. The second locality was within a short omnibus ride of the metropolis, a lane that we had known in its more picturesque days, and which probably now has been overwhelmed by the great onward march of the men of bricks and mortar. The sides of this lane were high and steep, the soil was poor and dry, and these banks abundantly bore the plant we have figured. The wood-sage is common enough almost everywhere, and we can only imagine that these two localities are more especially engraven on our memory because it was from these undoubtedly that our less pleasant memories of the wood-sage are derived. A decoction of the plant is held to be very tonic in its effects, and if the popular theory that a medicine must be good because it is nasty has any truth in it, the virtues of wood-sage must be considerable. The plant is, undoubtedly, an exceedingly bitter one, and some amateur doctors fall into the error of thinking that because some undoubted remedies are very bitter that therefore any bitter is in turn a remedy. At the same time it is only fair to say that, in the rustic pharmacopœia, the plant holds an honoured place which it would scarcely retain if it did not possess some value ; and it belongs to an order that is rich in plants of economic and medicinal service—sage, peppermint, marjoram, horehound—some of them, as the self-heal and the wound-wort, testifying in their very names to the esteem in which they were held. It has been suggested that this bitter principle would make it an excellent substitute for hops in brewing, and those who have tried it affirm that the beer clears sooner than when

the more familiar hops are employed. Beer-drinkers who cannot get the pure admixture of malt and hops would at least prefer wood-sage to *Cocculus Indicus*, cardamom, liquorice, grains of paradise, quassia chips, and the various other sophistications that, unless rumour and analysis sadly err, are not unknown in certain unscrupulous sections of "the trade."

Botanically, the plant is the *Teucrium scorodonia*. Its generic name was bestowed by Linnæus, from a belief that it is identical with the plant that Dioscorides says was first used medicinally by an ancient King of Troy named Teucer. We cannot affirm that this is not so; but as Dioscorides was a Greek flourishing in the reign of Nero, it is open to us to believe that this was one of his flourishes, or at least, if our view of the subject be held too flippant, that the point is open to some little question. The specific name *scorodonia* is derived from the Greek word for garlic, and does not appear to be particularly appropriate.

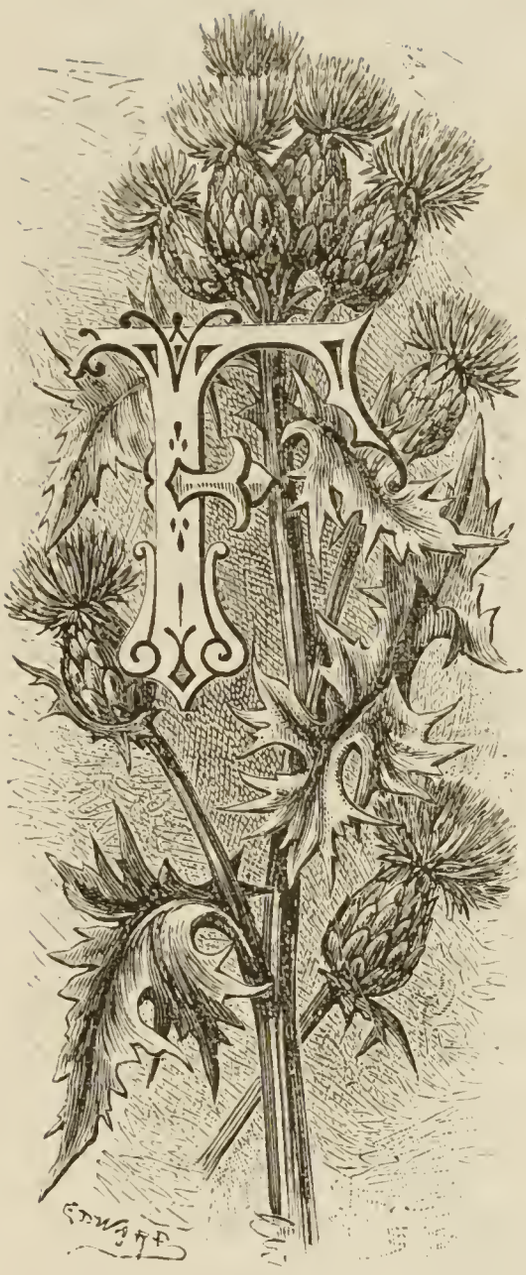
The root-stock of the wood-sage is perennial and woody, creeping some distance underground and throwing up branches at intervals. The stems are upright, numerous, and ascend to a height of some two feet, though many specimens do not exceed a foot in height. They are quadrangular in section, and purplish-red in colour. The leaves are opposite to each other, and very much wrinkled in texture, like those of the sages; hence, therefore, its familiar names, wood-sage or sage-leaved germander. These leaves are on footstalks, and in form are of a somewhat oblong heart-shape, and their edges are coarsely toothed. Both sides of the leaf are green, but more or less covered with grey downy hairs, and the veining is very conspicuous on each surface. The flowers are a pale

yellow or straw-colour, sometimes a light greenish-yellow; they grow in pairs, all facing one way, and form lateral and terminal one-sided racemes. As the leaves grow in pairs and the lateral flowering stems spring from their axils, these also are in pairs. The terminal flowering stem is about as long again ordinarily as those that spring laterally below it. Each individual has, at the point where it springs from the general stem, a floral-leaf or bract, small and simple in character. The calyx is tubular, bulging or gibbous at the base; the upper tooth being large and conspicuous, and the four lower ones much smaller. The corolla is monopetalous and widely opened, its slender tube being about as long again as the calyx. The four stamens have yellow anthers, and very noticeable purple and hairy filaments. The plant flowers in July, August, and September.





CREEPING THISTLE.



THE CREEPING THISTLE.

Cnicus arvensis. *Nat. Ord., Compositæ.*

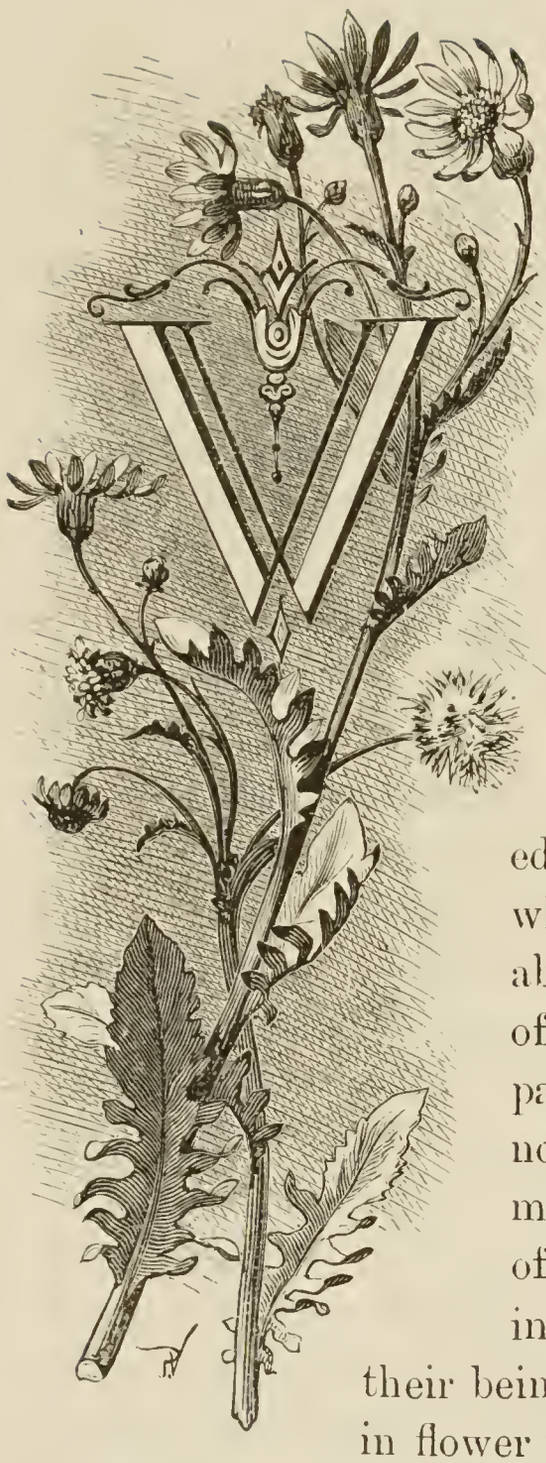
FEW of our readers who have not had occasion to look into the matter would imagine our native thistles to be so numerous a body as they are, there being a strong family likeness amongst them, though many of the species may readily be distinguished. We have already figured the marsh thistle, the spear-plume, and one or two others, and the present species is an equally common one As thistles increase not only by means of their flying seeds, but also by the aid of their creeping roots, they are one of the pests of the agriculturist, and farmers cannot too distinctly have their attention called to their pernicious effects, and to the nature of their growth. No species of thistle should be allowed by the farmer to ripen its seeds; all should be rigorously cut down before these are ready for dispersion, though the mere cutting down of the plant seems of little value, as it,

locality for it is in corn-fields, and we remember to have seen a piece of ground that was ostensibly a corn-field so thickly covered with this thistle that the real crop sank into the second place, not a square yard anywhere all over the field being without its one or more—and generally more—thistle plants. Such husbandry, or rather lack of husbandry, as this is a curse to the whole country-side. The flowers of the creeping thistle are rather a pale purple colour, and have the rich musky fragrance of most of the race. Like all the other species, the flower-heads often vary from purple to pure white, a point that our readers should note, or they may imagine that they have discovered a new species, and be proportionally elated or bothered, when it may very possibly be only one of the very common white-flowering variations from the ordinary types. The larva or caterpillar of the beautiful painted lady butterfly, the *Cynthia cardui* of the entomologist, feeds on this and various other species of thistle.





WATER RAGWORT



THE WATER-RAGWORT.

Senecio aquaticus. *Nat. Ord., Compositæ.*

WHEREVER, throughout Britain, we find a low-lying and marshy piece of meadow land, there almost certainly we shall find the brilliant yellow flowers of the water-ragwort, the plant here represented, starring it over in rich profusion. It may also be commonly met with by the edges of ditches and streams; and when seen at all is generally abundant, hundreds of plants being often found in one small river-side pasture or other likely spot. It is not, therefore, a plant that requires much searching for; not only the size of the plants but also their number in any suitable locality, will prevent their being readily overlooked. It is found in flower throughout the whole summer.

The plant is the *Senecio aquaticus* of botanical science. The generic name is derived from the Latin *senex*, an old man, from the hoary look that the early ripening

of the grey seed-down gives to the plant. The name, a somewhat forced and fanciful one, was bestowed on the genus by the great Linnæus. The idea seems to have struck him as a good one, for a closely allied genus in the same sub-tribe of this great natural order was by him called *Erigeron*, a name bestowed on the plants of that genus for the same reason that guided the choice of the generic name of the water-ragwort, *Erigeron* being derived from two Greek words signifying "early," and "an old man." The specific name *aquaticus*, of the ragwort now under consideration, and its English name water-ragwort, both point clearly to its liking for the neighbourhood of water; the plant, however, is not really an aquatic plant in the sense that the water-lily or the flowering-rush are, as it is always found on the banks, though these could perhaps not always be literally termed *terra firma*. The English name ragwort refers to the somewhat torn and ragged look of the deeply-cut foliage, wort being an old English word for plant. We meet with it again in the swallow-wort, saw-wort, soap-wort, glass-wort, roth-wort, cross-wort, dane-wort, cole-wort, awl-wort, butter-wort, may-wort, milk-wort, and many other old plant names.

Several of the species of *Senecio* are very similar in appearance, and this is one of them. The present plant, the narrow-leaved ragwort (or *S. erucæfolius*), and the ragwort proper, (or *S. Jacobæa*), may often be mistaken for each other, for though the type-forms are sufficiently distinct to amply justify their discrimination as separate species, the forms often run into variations that render their identification at times difficult. The botanical test in such a case is the form of the fruit, a point which, in a book like the present, it is needless for us to discuss

in such detail as would make our remarks of any real service.

The general features noticeable in the water-ragwort are as follows:—Foliage alternate in arrangement on the stem, dark green, deeply cut; the stem ordinarily about two feet high—one help towards its identification, for in the *S. Jacobæa* the stems are often three feet high; the lower portions of the stems are often very pure and brilliant pink, or even crimson. It also branches and spreads more than in the other species named; the individual flowers are larger also, and the growth of the corymb, as the form of inflorescence is termed, is looser and more irregular. Strictly speaking, each so-called flower of popular parlance is an aggregation of a great number of florets into what should more properly be termed a flower-head; and the same remark applies to what is familiarly called a dandelion or a daisy-flower; it is in each case a mass of small blossoms gathered into one whole. The corymbose inflorescence is the form produced when the stems bearing the lower flowers are much longer than those nearer the summit, so that, roughly speaking, the flowers all come to one level. The water-ragwort is a perennial.

The genus *Senecio*, to which this plant belongs, is the largest of the numerous genera into which the great composite family is divided. Eleven species of *Senecio* are found in Britain, some, like the groundsel (*S. vulgaris*), and the present plant, are abundantly met with, while of the others some are rare and very local in their range. All the British species have yellow flowers. The various kinds of garden cinerarias, as the florists call them, all belong, too, to this same genus: the lowly groundsel, that springs up everywhere in the garden, and the greenhouse plant so

zealously preserved from harm, are brethren. The ragwort is by the older herbalists known also as the St. James's-wort, stagger-wort, and stammer-wort. St. James's day is the 25th of July, and as that is about the date when the ragwort is fairly in blossom, that will probably, as in the case of several other plants bearing saints' names, give the point to the title. It is clear that stagger-wort and stammer-wort are both testimonials to its supposed medical efficacy. The plant was in the Middle Ages held to be "singular good to heal green wounds, as also inward wounds." Cancer, sciatica, and many other grievous ills, were supposed to yield to its potency, but its good qualities, if it possesses any, are now altogether disregarded, for no use is made of the plant in any form.





TANSY



TANSY.

Tanacetum vulgare. Nat. Ord., Compositæ.

ALL our readers will probably at once recognise the subject of our present illustration, for the tansy is one of our most generally distributed plants, being met with all over the country. It will be found springing up on the broad strip of waste land that so often borders our country roads, or it may often be seen at the edges of fields. The height of the tansy, varying from eighteen inches to a yard, tends to make it conspicuous, and the bright golden flower-heads that crown the plant at once attract the eye. The flowers are almost at the summit, not running down the sides of the stem, and they should be looked for at the end of July, during August, and in the beginning of September. It is one of the attractive flowers of the waste lands.

Our present name tansy and the French *tanaisie* are both corruptions of the mediæval Latin name Athanasia, which was itself derived from the Greek words *a*, not, and *thanatos*, death, *i.e.* immortality. This plant was held in

such esteem by the monks and mediæval herbalists that when they came across the passage in Lucian where Jupiter, speaking to Mercury of Ganymede, says, "Take him hence, and when he has tasted immortality let him return to us," they at once concluded that the tansy was the plant intended, and it became the Athanasia. Unfortunately, however, with all these old names, one has no sooner fairly accepted a definition than another at once springs up to upset it, and other writers, as Gerarde and Parkinson, tell us that the tansy is so called "because the yellow floures gathered in due time dye not of a long time after."

The tansy was largely employed in the mediæval herb garden, both as a medicine and for culinary purposes; and we have heard, though we have never really brought the matter to the test of practical experience, that any meat rubbed over with it during the warm weather is safe from the attacks of the flies, the essential oil which it contains giving it a strong odour, which we presume is objectionable to these small plagues of the housekeeper. Cooking probably removes this, or the meat might be considered equally objectionable when brought to table. Boerhaave declares that "this balsamic plant may well supply the place of nutmegs and cinnamon, for I believe that Asia does not supply a plant of greater fragrance than the tansy." Its leaves are even now, by some old-fashioned cooks, used in omelettes, and it used formerly to be much eaten with other foods during Lent as a representative bitter herb. Culpepper, writing in 1652, waxes indignant on this quasi-religious use of the plant. "Now, forsooth, tansies must be eaten only on Palm and Easter Sundays and their neighbour days," and he foresees "that want of commonly

eating this herb in spring makes people sickly in summer, and that makes need for the physician." As he was not what we should now call a regular practitioner, but was, on the contrary, at most evident feud with the medical profession, he insinuates that none were more glad than the physicians when the Church ordered the tansy to be eaten only on certain days.

The way old Culpepper describes, or rather fails to describe, many of the common plants is very original, and possesses many evident advantages to the author. Thus of the present plant he says, "Tansy is so well known that it needeth no description." His guidance, too, on the subject of stinging nettles is very quaint—"They are so well known that they need no description: they may be found by feeling in the darkest night." Woodbine, again, is "a plant so common that every one that hath eyes knows it, and he that hath none cannot read a description if I should write it." Of rye, too, we read: "This is so well known in all the counties of this land, and especially to country people, who feed much upon it, that if I did describe it they would presently say I might have spared that labour." There is a slight dash of impertinence towards his readers in this way of treating the subject; but what a saving of time and space is effected! Written in this style, our "Familiar Wild Flowers" might indeed have been pocket volumes, for a sheet of note-paper would have held all the necessary manuscript for the printer. We could then begin and conclude our present article something in this style:—"Any man who can walk has seen the tansy, and a lame man could not even if he would; so no more of tansy."

The tansy is a perennial. Its root is somewhat large

and creeping, "casting itself here and there." The leaves are deep cut into numerous parallel segments, "infinitely iagged and nicked and curled withall like vnto a plume of feathers," as Gerarde describes them, or "made up of many small leaves set directly one against another, and spreade abroade like wings, the which be also iagged and snipte like small feathers," to quote Dodoens. The flower-heads are numerous and semi-globular, "yellow floures like small round buttons or like the middle of the floure of Cammomill, but greater and of stronger savour." These being gathered in their prime, will hold the fresh colour a long season.





WOOD-VETCH.



THE WOOD-VETCH.

Vicia sylvatica. Nat. Ord., Leguminosæ.

ANY of our readers who have taken such an interest in plants as to care to collect them, or at least to observe them, will no doubt have readily detected that certain plants are always found under certain conditions, and that beyond the pale imposed by these conditions, all search is fruitless and disappointing. A plant may therefore be either very rare or very common—very common if searched for in the right place, and at the proper season; very rare if searched for amidst uncongenial surroundings. The common and the open moorland, the stream, the sea-beach, the woodland glade, have each their appropriate flora, and it is only by visiting all these that one gets a fair idea of the rich variety of our wild plants. The heaths, the golden broom, and prickly furze, are all in an especial degree plants of

the open waste. The flowering rush, the arrowhead, the white and yellow water-lilies, are the treasures of the stream; the bleak sea-beach has no less its special plants—the purple sea-lavender, the crimson thrift, the golden blossoms and long waving pods of the horned poppy, the quaint foliage of the sea-holly. In like manner our woods and forests have their characteristic blossoms—the golden daffodils, the purple hyacinths, and many others: the wood-vetch, the plant represented, is one of these.

Though in some places common enough, it is one of our more local plants, as it has nothing like the universal range of many of our flowers. It is more especially a northern plant, and seems to delight particularly in open woods on the mountain-sides. It is not at all an uncommon plant in Scotland and the northern counties of England, and it also occurs from time to time in hilly and woodland districts in many other parts of England. The specimen from which our illustration was copied was found in a wood in Wiltshire, where it may be met with in abundance, and it has even been found in a locality so far removed from the district of its especial choice as Kent. Wherever found, it is always, however, what—if we may borrow a term from our railway engineers—we may call a "high-level" plant.

The wood-vetch is a very striking and handsome-looking plant when found under favourable conditions. It frequently attains to a height of some five or six feet, or even more, its long stems trailing over the bushes and undergrowth, climbing and supporting themselves by means of the long and branching tendrils with which they are abundantly furnished. The form of the leaf is similar to that of the tufted vetch (*Vicia cracca*) and other equally

commonly distributed species of the genus, but it is larger in size. It is composed of a great number of leaflets, ranged in two rows up the stem; eight or ten pairs of these leaflets would be about the average number in each leaf. The leaf does not terminate in a leaflet, as in the ash, the elder, and many other leaves of this type, but the central stem is elongated to some distance beyond the last pair of leaflets into a thin tendril that often has lateral tendril-forms given off from it. These tendrils are very strong, and give the plant a great power of grasping and holding on to any convenient point of support, a very needful feature in the economy of the plant, as it is itself quite destitute of the strength that would enable it to stand alone, and make its own way in the world. The leaves have at their bases broad stipules deeply toothed, and altogether very different in form from the members composing the true leaf. The flowers are large and very numerous, pure white, and freely streaked with purplish-blue veins. The stems or peduncles that bear these are of considerable size, ordinarily longer than the leaves; the flowers spring from these in a long line of beautiful forms, and as they are not so densely crowded on the flower-stem as in some of the other species, the grace of the form and the delicacy of the colouring are easily perceived and duly appreciated. The inflorescence is racemose—that is to say, each flower is borne on a small stem of its own that springs from the common flowering stem. It is a very common form of inflorescence, and may be readily seen in the hyacinth, the mignonette, and many other well-known flowers. The pods succeeding the blossoms are about an inch long, and rather broad in proportion to their length, as compared with those of many other species of the great pea-flower family.

The scientific name of the wood-vetch is *Vicia sylvatica*. The generic name is open to a certain amount of doubt, though possibly it may be derived from the Celtic word *gwig*, from whence spring in turn the German *wichen*, and the English word vetch. The specific name is sufficiently indicative of the sylvan shades in which the plant delights to need no lengthy explanation. The wood-vetch is a perennial. It may be met with in flower by about the middle of June, and lasts in flower from that time until well into August.





SOWTHISTLE.



THE SOW-THISTLE.

Sonchus oleraceus. Nat. Ord., Compositæ.

WE have already figured one plant of this genus, the corn sow-thistle; the present species is still more abundant, for while the former plant is fairly common throughout Britain in our corn-fields, the present species, the common sow-thistle, is abundant everywhere. Like the corn sow-thistle, it is a weed of cultivation; but it does not confine itself to one crop, but springs up freely wherever a piece of land is under culture of any kind. The plant is almost universally distributed, north, south, east, and west, over the wide world, except in some few tropical localities. Wherever we go we find this pertinacious weed, springing amidst the crops, availing itself of the tillage of man, and filling his fields with its unwelcome seedlings. The meaning of the name we have already given in our remarks on the corn sow-thistle. We may, however, just remark that it is in France *le Laiteron*, a name bestowed on it from the milky juice with which its stems are filled.

On this account, also, it is at times erroneously called the milk-thistle; the true milk-thistle is a very different plant.

Two very distinct forms or varieties of the common sow-thistle are met with. These are sometimes considered as different species, and called the *Sonchus oleraceus* and the *S. asper* respectively; while by other botanists one species only is recognised, the *S. oleraceus*, which at times exhibits so marked a variation that it is known as the *S. oleraceus*, var. *asper*. The points of difference do not appear to be constant; the variety is often found growing with the typical plant, though in some districts almost all the plants are either of one or the other form, The plant represented in our illustration is the *S. oleraceus*, var. *asper*, or the *S. asper*, if it be granted the rank of an independent species. The prickly variety we have selected for our illustration ordinarily has its leaves darker in colour than the normal form, less cut up into lateral segments, and much more prickly in character: the portion of the leaf that clasps the stem is also rounder and more densely fringed with prickles; these auricles, as they are termed, or little ears, the name given to these clasping bases of the leaves, are also much rounder in form and more marked every way in the asper variety. In our own garden, where the sow-thistle, from its freedom in seeding, is a perfect nuisance, all the specimens are of the prickly type, and we certainly found no difficulty in procuring any number of characteristic specimens for the purpose of our illustration.

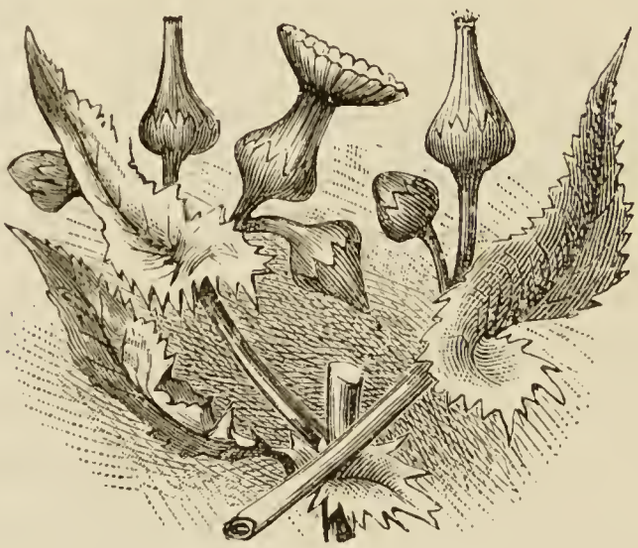
The sow-thistle is an annual, frequently attaining a height of from three to four feet. Unlike the corn sow-thistle, its stems and leaves are almost entirely free from hairs. The leaves are a rather deep green in colour, have a polished surface, are deeply divided into lateral

lobes, and have their outlines roughly serrated. The upper leaves are much simpler in form than the lower. The general arrangement of the flower-heads is paniculate. The drum-like form of the involucre, and its conical character after the flower-heads have withered away, are noticeable features. The seeds we have found continue to develop after the plant is gathered. We once picked a piece in full flower, and after sketching it forgot to throw it away. On noticing it a few days after, we found that several of the characteristic globular heads that betoken the ripening seed, had formed, and were, in fact, so far matured that they were already scattering their seed; and, had our study been but the congenial soil they love, we should speedily have been overrun with the young seedling plants.

The sow-thistle was by the ancient writers accounted very wholesome and nourishing as an article of diet. It is recorded by Pliny that Theseus, prior to his encounter with the bull that was ravaging the plain of Marathon—which he afterwards captured and led to Athens, offering it in sacrifice to the goddess Athene, who had lent him her aid in the undertaking—took as a prelude and suitable nourishment a dish of sow-thistles. The young leaves are still in some parts of the Continent employed as an ingredient in salads, though the ancient belief in their strengthening qualities seems to have in great measure passed away. In the Middle Ages, of course, the plant, like almost every other, was accredited with healing powers. "The milk that is taken from the stalks when they are broken, given in drink, is very beneficial to those that are short-winded and have a wheezing." It was also prescribed for inflammation, deafness, and many other things, and used by the

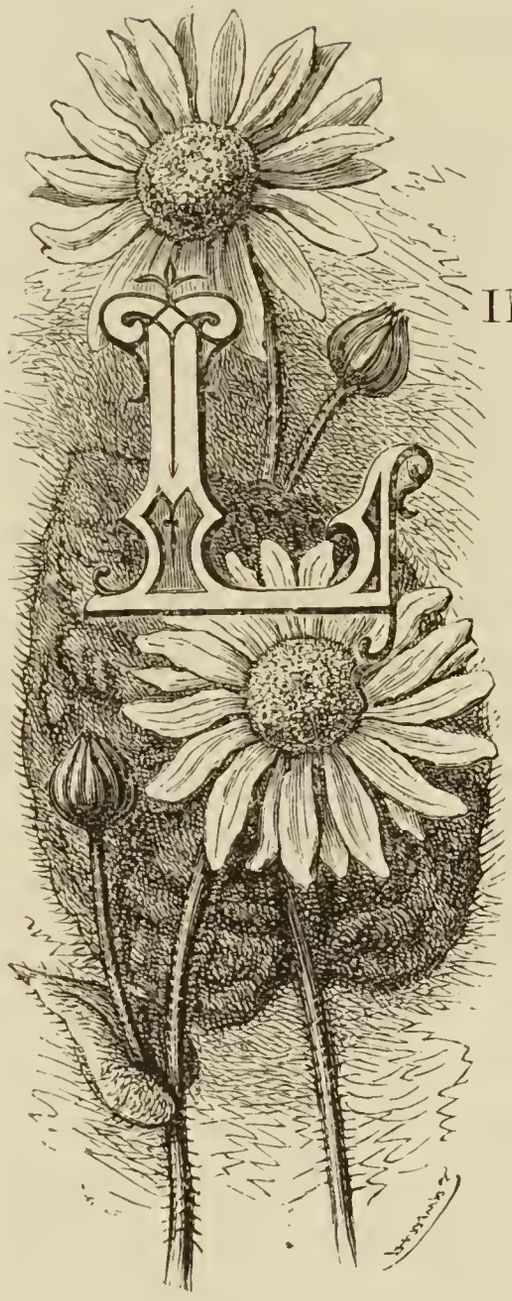
ladies of the period as a wash for the face, as it was held to give great clearness of complexion. At present, we need scarcely remind our younger readers, its chief use is as food for rabbits: there is no green food they will welcome more eagerly.

The marsh sow-thistle, or *S. palustris*, with its large yellow flowers and height of some seven or eight feet, is a very striking plant, but it is too rare to come within the scope of our remarks.





LEOPARD'S BANE



LEOPARD'S-BANE.

Doronicum Pardalianches. Nat. Ord., Compositæ.

LIKE the ivy-leaved toadflax and many other species that could be named, the present plant is not a true native of England, but it has so far thriven in its new home as to have thoroughly established itself a place in our flora. The leopard's-bane is a plant of the forests and mountain pastures of central Europe, but it has long been cultivated as an adornment of the cottage garden, and as a valuable medicinal plant in the herb garden of the mediæval herbalists. From thence it has spread as an outcast or by means of its seeds, and may now be met with sparingly in many districts in England and the south of Scotland, growing often in wild and craggy spots, where there can be no doubt of its wild and self-sown nature.

The leopard's-bane may claim, too, a certain literary interest, as its occurrence in the gardens of the curious and the herb plots of the faculty made it sufficiently well-known to cause

allusions to it in our older writers. The only instance we shall here quote is a still more interesting one, as it may be taken as an indication of the early assertion of the plant to a place in our native flora. Jonson, in his "Masque of Queenes," says :—

> "I have been plucking (plants among)
> Hemlock, henbane, adder's tongue,
> Nightshade, moonwort, libbard's-bane."

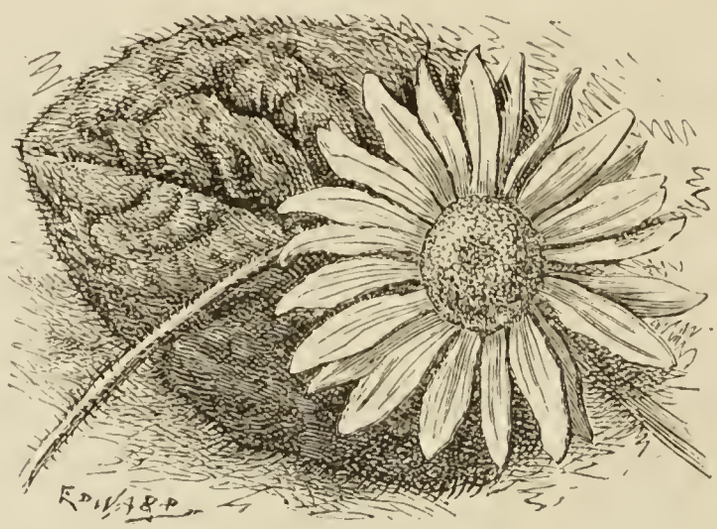
Hemlock, henbane, and nightshade are all dangerous poisons, and so, too, is the leopard's-bane. Adder's-tongue sounds as though it should be formidable, though the little fern that bears that name is so called from the shape of the spike of fructification, and not from any deadly quality; while moonwort, another graceful little fern, is as harmless as the last, though its name may be suggestive of deeds of darkness. What we, however, here want to enforce is that the leopard's-bane comes naturally into association with five other plants, all of which are most undoubtedly found freely growing wild. Jonson's spelling of the name is in accordance with the usage of the time, and many of our readers will no doubt recall the "libbard" in Shakespeare's works and elsewhere.

The root-stock of the leopard's-bane is large and somewhat creeping, and it was this part of the plant that was more especially valued in medicine, though it was a very dangerous thing to deal with, and the speedy death of the patient was the result of incautious use. There is great reason to believe that Conrad Gesner, the *monstrum eruditionis*, as Boerhaave called him, prematurely closed his career in experimenting with this plant. The lower leaves of the leopard's-bane are large, rough in texture, and heart-shaped, each being borne on a long stem. We

have represented one of these leaves in our illustration behind the flower. Had we had room to represent the whole of the leaf-stalk and its attachment to the stem, it would have been seen that it embraced it by a broad dilation at its base. The upper leaves, as our figure also shows, are simple in character, small, and without stalks, the bases of them partially embracing the stems. The main stems are between two and three feet high, very slightly clothed with leaves, erect in general direction, and very slightly branching, if at all. The flower-heads are large and attractive-looking, conspicuous both from their size and their brilliant colour. The rays that surround the central disk are numerous and rather long in proportion to their breadth when compared with the corresponding part in many other composite flower-heads. The plant is a perennial, and its blossoms should be looked for in May, June, and July. The general effect of the plant is that of a large mass of rich green leaves near the ground, and some few rather weak-looking stems bearing the flower-heads rising from their midst. We can well remember the impression its brilliant foliage and blossoms caused when we first saw the plant.

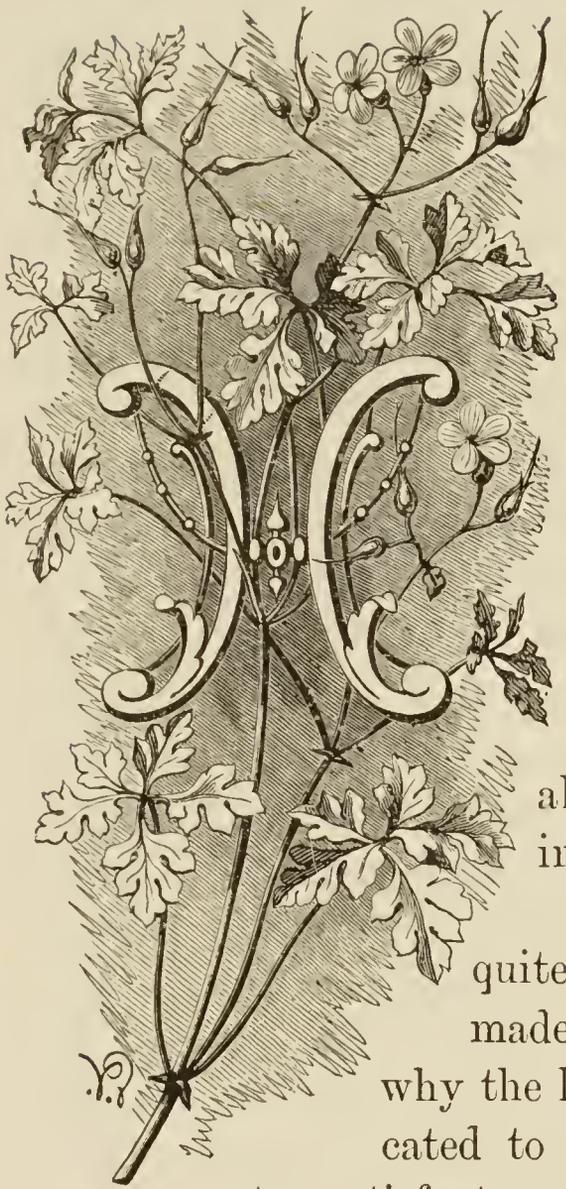
The generic name is open to considerable question. Some would tell us that it is compounded of two Greek words signifying *gift* and *victory,* because it gave men the power of destroying vild beasts; while others say that it is a corruption of the Arabic name, *doronigi,* of the plant. The name was bestowed on the genus by Linnæus. The Eastern nations introduced many valuable medicinal plants into Europe, and the writings of the Arab physicians were held in high repute, so that the Arabic origin of the name is not really so far-fetched as may at first sight

appear. The specific name is derived from two Greek words, signifying leopard and to destroy, as the juice of the plant was formerly used, when mixed with raw flesh, to poison wild beasts. We see the same principle in the naming of a plant having very poisonous berries which are used to destroy in the same way hyænas and other wild creatures: the plant is the *Hyænanche globosa*. The English name carries out the same idea, though fortunately for us we have imported the plant and its name, while the carnivorous plagues on which it might have been exercised are left behind. The name is similar in character to wolf's-bane, flea-bane, and several others. Dodonœus calls it panther-bane, and says that "it is very hurtful to man's nature, and killeth out of hand. The report goeth that if this herbe or the roote thereof be layd by the scorpion that he shall lose his force and be astonied, until such time as he shall happen agayne to touche the leaves of white elebor, by vertue whereof he commeth to him selfe agayne." In a foot-note he gives an amusing woodcut of two scorpions "astonied," and falling different ways.





HERB-ROBERT.



THE HERB-ROBERT.

Geranium Robertianum. Nat. Ord., Geraniaceæ.

HERB-ROBERT (*Geranium Robertianum*) is perhaps the commonest and, at the same time, the most graceful plant of a genus that contains several species, many of which are common, and almost all of them attractive, both in form and colour.

The meaning of the name is quite lost; various guesses have been made as to who this Robert was, and why the herb should have been thus dedicated to him, but all attempts to arrive at a satisfactory conclusion are vain. Some suppose that it is so called from St. Robert, a Benedictine abbot to whom the twenty-ninth of April is dedicated, as the Herb-Robert is then about coming into flower. Careful observations on the flowering of our various plants have been made for over nine years by a local natural history society of which we are one of the members, and we find from the records kept that the earliest date at which the plant has been found in flower is the 27th of April; the latest, May the 4th; the average

date for nine years being the 30th of April, or one day after the saint's day. The plant when once found in flower may be met with throughout the whole of summer and autumn, and even at times almost to the close of the year, as we find in the records of the society above referred to that it has been found in blossom as late as the 2nd of December, and it is always possible, and in fact probable, that others of a still later date may have escaped notice. It is evidently much simpler to record the first appearance of a plant when its blossoms burst newly on the eye, than to say when the gradual disappearance becomes total.

Many plant-names owe their interest to their connexion with mediæval legends or from the plants being dedicated, as was the custom, to certain saints; thus the yellow rocket, dedicated to St. Barbara, is on that account also called Herb-Barbara; the cowslip is called Herb-Peter from the pendant flowers faintly suggesting in form a bunch of keys, the badge of that apostle; the daisy is also called Margaret from its being in flower as early as the 22nd of February, St. Margaret's Day. The St. John's wort derives its name from the custom of gathering it with much ceremony upon St. John's Day, the 24th of June, for the purpose of keeping it in the house as a "preservative from thunder and the wiles of evil spirits."

In the Middle Ages the plant was held to possess considerable remedial efficacy; a theory has, therefore, been advanced that it may possibly owe its name to Robert, Duke of Normandy, for whom the "Ortus Sanitatis," a standard work for some hundreds of years, was written. It has long been a botanical custom to confer the name of any one whom it is desired to honour upon some plant,

and one ordinarily with which they are in some way connected. The fuchsia and camellia are names given in honour of the introducers, the fuchsia, a native of Chili, being brought to Europe in 1788 by Leonard Fuchs, a celebrated German botanist; while the camellia, a native of Japan and China, derives its name from Jacob Kamel, a Jesuit missionary, who brought it with him to Europe in 1739. In scientific nomenclature we find the same principle observed, the *Goodyera* being so called from John Goodyer, a botanist in the reign of Queen Elizabeth, the *Koeleria* from Louis Koeler, the *Molinia* from Ignatio Molina: all men famous in their day as naturalists.

The Herb-Robert is sometimes called the Herb-Robin, though this is probably only a corruption of the more common name; it is also called Ragged Robin, Robin-flower, and Red Robin. The first of these names is more ordinarily bestowed on another flower, the meadow lychnis, or *Lychnis Flos-cuculi*. The name in any of these flowers is possibly a corruption of rob-wort, the red plant, as in the autumn the whole plant turns brilliant crimson, and then becomes especially noticeable. All the plants of the genus to which this belongs are called crane's-bills, a name bestowed upon them from the peculiar form of the seed-vessel or fruit. The generic name geranium carries the same meaning, being derived from the Greek word for a crane, *geranos*.

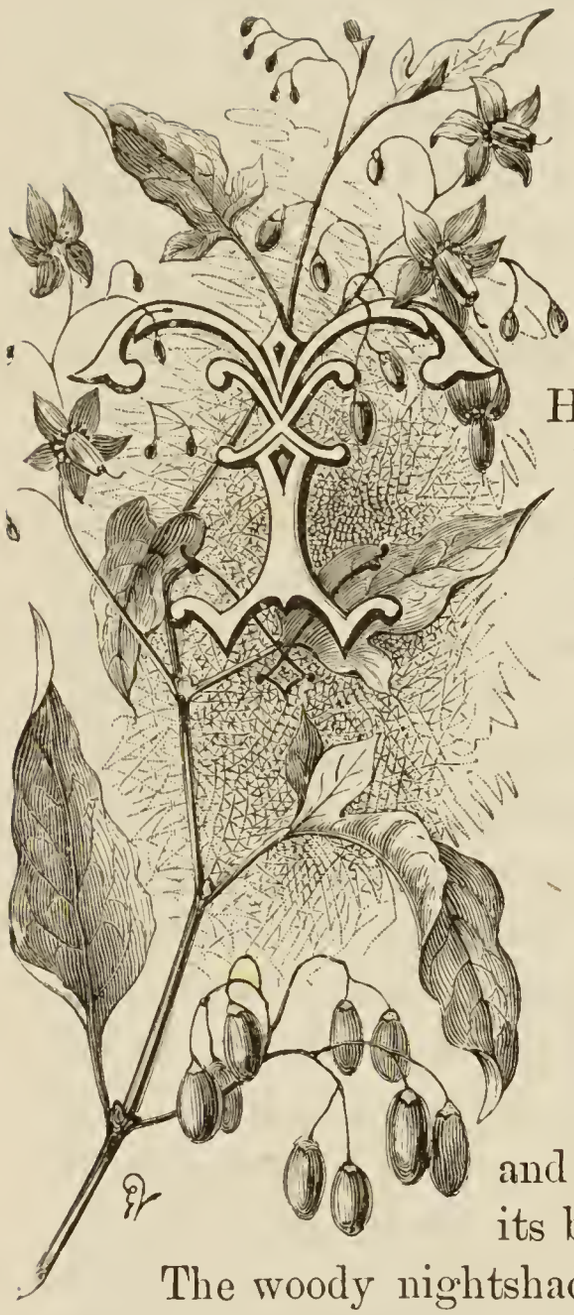
The Herb-Robert is an annual plant. The stems fork a good deal, hence the plant spreads considerably from this branching out of the parts, and becomes conspicuous amongst the taller plants of the hedge-row or waste ground, not by rivalling them in height, but by dispossessing them in the somewhat considerable area of

ground that the spreading nature of the plant enables it to cover. The leaves are thrown off from the stem in pairs, and are divided into three or five deeply incised segments. The flowers, though rather small, are sufficiently bright in colour to attract the eye; generally a shade of pink, they may at times be met with of a pure white. The flowers always grow, as may be noticed in our illustration, in pairs, hence the plant is sometimes called by country folk, knife and fork. The stems of the Herb-Robert, like those of the stitchwort, and some other common plants, are rather brittle, swelling at the joints, and readily snapping at those points. The whole plant has a very strong and somewhat disagreeable smell, noticeable at any time, but especially on bruising the leaves or snapping the stems apart. A small variety, sufficiently distinct in character to have led some writers to class it as a species, is not uncommonly found by the sea-shore. It has been described as the *Geranium purpureum*, or *G. Raii*, but its claims to rank as an independent species are scarcely sufficient to justify this complete separation from the *G. Robertianum*.





WOODY NIGHTSHADE.



THE WOODY NIGHTSHADE.

Solanum Dulcamara. *Nat. Ord.*, *Solanaceæ.*

THE woody nightshade, though by no means so conspicuous nor so attractive as many of the plants that meet the eye in a country ramble, is too common a denizen of our hedgerows to be omitted from our series, and it will, we think, in addition, be found to be not without a certain beauty of its own in the quaint form of its flowers and foliage, in the rich contrasts of colour in the parts of the blossom, and the variety of tint observable in its bunches of fruit.

The woody nightshade is a shrub throwing out long branches that climb and straggle for a considerable distance over the hedgerows, in which the plant is almost always found. It is never met with standing alone, but when in some tangled thicket or old hedge it can find the needful support to its weak stems, they run for many feet over and among the other plants. The leaves are all borne on stems; the form of the foliage is subject to a very con-

siderable amount of variation. In the lower leaves the form is boldly heart-shaped, in the upper the leaves are more attenuated, more lanceolate in form, and having at their base two wing-like segments, making a form that is known botanically as hastate, from a certain resemblance that it is supposed to bear to the head of a spear (Latin *hasta*). In some leaves a second pair of these lateral lobes occurs beneath the larger pair. The general form of the leaf when thus furnished with these lateral members is very pleasing. The colour of the foliage is somewhat dark and sombre in effect when seen in a mass. The flowers are small; the corolla is composed of five segments, of a dull purple colour, and very acute in shape, producing a very effective star-like form. Each segment of the corolla has two green spots at its base, a feature that is scarcely noticeable on a cursory inspection, but which on a closer investigation may be readily observed, and which gives the effect of a slight ring of green when viewing the corolla as a whole. The corolla is reflexed, that is to say, instead of making a cup, as in the buttercup, or a flat plate or disc, as in the borage or pimpernel, the parts are thrown so far backward as to appear almost as though drooping. The centre of the flower is filled with a mass of conspicuous yellow forms, composed of the almost sessile anthers which close together into a cone-like form round the central organ or style. Exactly the same form of growth may be seen in the potato, an allied species, and as all the parts in the potato flower are considerably larger than in the woody nightshade the structure and relationship of the parts may be more readily detected by the inexperienced in floral dissection. The flowers grow in bunches, which are generally, but by no means so constantly as is the case in most

plants, given off from the same points as the leaves. As the flower-stalks spring from the opposite side of the stem to the leaves, and the flower heads grow in a drooping direction while the leaves turn to the light, it is very difficult to get a fair view of both at once. If the spray be turned so that the leaves show to advantage the bunch of flowers is altogether in the background; if the flowers be turned towards the spectator, he sees those admirably, but it is with a background of nothing but the back or under surfaces of the leaves. Any one attempting to sketch a piece of the plant, and to do full justice both to foliage and blossom, will at once find how inconvenient a feature this mode of growth of the plant is. The flowers are to be met with occasionally pure white, but it can be a by no means common variation from the typical colour—we, at least, with an acquaintance of considerably over a quarter of a century with the plant, never came across any variation whatever from the normal purple. The variation is, however, noted by several authorities. The woody nightshade blossoms from about the first week in June to the middle of September. The berries that succeed the blossoms are at first green, then turn yellow, afterwards orange, and ultimately crimson, and as berries in all these degrees of development may often be found on the same bunch the effect is very pleasing, and the general appearance of the shrub when in fruit is certainly richer and more attractive than it is when the blossoms are the chief feature. Like most plants, however, that have a long duration of flowering, both blossom and fruit may often be found simultaneously, the earlier blossoms having faded away and developed their fruit while the later flowers are still coming forward. The blackberry is another notable example of this.

The woody nightshade is the *Solanum Dulcamara* of the botanist. The generic name is derived from the Latin word *solamen,* solace or consolation, and refers to the comfort and relief that the properties of some other species of the genus afford from their narcotic properties. The specific name is equivalent in meaning to one of the plant's names, the bittersweet, and it is also in some old herbals called the *Amaradulcis,* because the stems when first tasted appear bitter, a sensation soon followed by a considerable degree of sweetness.

The only other English species is the common, or black, nightshade (*S. nigrum*), so called because its fruit when ripe is jet black. Its blossoms, of similar form to those of the woody nightshade, are pure white. It is very commonly to be met with in fields and on waste ground. It is the petty morel of the older herbalists, the deadly nightshade, a plant of another genus, being the great morel.





CORN-COCKLE.



THE CORN-COCKLE.

Agrostemma Githago. Nat. Ord., Caryophyllaceæ.

LIKE the poppy, the corn chrysanthemum, and the beautiful blue blossom that is pre-eminently called the corn-flower, the present species is one of the typical plants of the harvest-field. It is by most writers spoken of as an introduced plant, one that has probably been brought over from Russia, where it is very common, and from whence large quantities of grain have been procured, the theory being that the seeds of this plant might readily be introduced in such cargoes, and distributed over the land when the corn was re-sown in England. It will easily be remembered, however, by many who read these lines that the importation of foreign corn has only been a matter of comparatively recent development. As, moreover, amongst the Anglo-Saxon names of plants we find the *coccel* mentioned, its claim to be a native appears to be proved, if only, and this we cannot certainly say, the Anglo-Saxon plant so named was identical with the

present plant. Whether the cockle, however, be an indigenous plant or one that has been introduced, there is no doubt that it finds its surroundings all that are necessary to its wellbeing, as it is in many places so abundant as to be reckoned one of the farmer's pests. It is the *Agrostemma Githago* of most authorities, though some botanists unite it with the genus that includes the white lychnis and the ragged-robin, and call it the *Lychnis Githago;* and it is certainly very nearly akin to those plants in its general structure. The genus *Agrostemma* was originally founded by Linnæus; the word is Greek in its origin, and signifies "crown of the field," a testimony to the beauty of the plants, all of which, however, with the exception of the present species, have been referred back to the allied genus *Lychnis,* a genus also founded by the great Swedish botanist.

Some of our readers will recall a passage in the Bible where, after Job's solemn protestation of his integrity, he calls even his land to bear record against him if those protestations of uprightness are false, and concludes by saying, "Let thistles grow instead of wheat, and cockle instead of barley." The reading, however, in the margin substitutes the expression "noisome weeds" for the cockle in the body of the text. We are unable to find that cockle is one of the plants of Palestine, though it is very possible that it is; all, therefore, that we seem able to really deduce from the passage is, that at the time our authorised version was made cockle at once suggested itself to the translators as a representative noisome weed in the corn-field.

The corn-cockle is an annual. It is in general effect erect, for it branches but slightly, such branches as there

are being given off at a very slight angle. The plant is ordinarily about two feet high. All the stems and leaves are generally covered with long soft hairs, that are often so numerous as to give a greyish bloom to the parts they so abundantly clothe. The foliage is long and narrow, and somewhat sombre in tint. The conspicuous but not very numerous blossoms are borne on long peduncles which rise from the axils of the leaves. The petals are five in number, purplish-crimson in tint, and have their exterior edge simple in form; not deeply lobed, as in the white campion, an allied species, already represented. On the crimson ground of each petal are two or three lines of black; these lines are interrupted in character, not continuous. The blossoms have no scent. The calyx is long and tubular, hard and leathery in texture, and divided into five very long and prominent segments; these segments project boldly far beyond the general line of the corolla in the expanded blossom. The styles are five in number, and very long, while the stamens are twice five. The corn-cockle will ordinarily be found in flower by about the end of June, and lasts throughout July and August. After flowering, the calyx enlarges to enfold the somewhat bulky capsule, or fruit, that succeeds the blossom. The capsule opens into five parts on the ripening of the seeds contained therein. Many beautiful kindred species are cultivated in gardens.

The family of plants to which the corn-cockle belongs is a very natural one, as all the numerous plants that belong to it have many points in common. All the species have their leaves arranged in pairs; these leaves are what is termed botanically entire—*i.e.*, they are bounded by a simple line, and have no serrations or other form of broken

outline, and they are almost always long and narrow. Where the width increases in proportion to the length the form is still quite simple. There are no stipules. The stems, circular in transverse section, are generally somewhat swollen at the points where the pairs of leaves are thrown off, and the plants snap readily at these points. These features may all be seen in the following plants, members of the same family as the corn-cockle, viz., the stitchwort, figured together with the yellow nettle, on one of our plates; the white campion, the subject of another illustration; and the ragged-robin, represented, together with one of our wild geraniums or crane's-bills, on another plate in this part. Other examples of the family are the soapwort, the bladder-campion, and the mouse-ear chickweed; while amongst cultivated blossoms the sweet-william and the numerous varieties of pinks and carnations are easily accessible for comparison.





HEART'S-EASE OR PANSY.



THE HEART'S-EASE, OR PANSY.

Viola tricolor. Nat. Ord., Violaceæ.

THE heart's-ease, or pansy, belongs to the same genus as the sweet violet, a plant we have already figured. The present plant is the *Viola tricolor*, the sweet violet the *Viola odorata*. We have, in addition to these two, some half-dozen or so of other species of violet. It is a genus of which the several species are subject to a very considerable amount of variation, more or less marked, in the various parts, and that has, therefore, been the cause of a good deal of difference of opinion, some observers admitting to full specific rank forms that others can only acknowledge as more or less prominent variations from the true type forms.

The present plant, the heart's-ease, is as variable as any of the other members of the genus; but whatever modifications of form it may present, it may always be readily distinguished from the other violets by the

general form of its foliage, which is much more cut up than in any of the other species, and by the very large foliaceous stipules at the bases of the true leaves. The stem, too, branches much more than we commonly find in the other members of the genus.

Besides the free branching of the stem, it is generally very angular; a section cut across it would not give the circular form that we should find in the stems of so many other plants. The leaves are deeply cut into rounded lobes, the terminal one being considerably the largest. In the other species the foliage is ordinarily very simple in general outline, reniform, or heart-shaped, and having its edge finely toothed. The form of the stipules in the heart's-ease can hardly be clearly described without the use of technical terms that we desire as much as possible to exclude from our present pages; but our readers will readily gather an idea of their nature from our illustration, where they necessarily form a conspicuous feature. The flowers vary a great deal in colour, but are either purple, yellow, or white, and most commonly there is a combination of all these colours in each blossom. The upper petals are generally most showy in colour, and purple in tint, while the lowest and broadest petal is usually a more or less deep tint of yellow; in some cases as pale as what we often hear people call straw-colour, while in other examples it is full and rich. The spur at the back of the flower, produced by an elongation of the base of the lowest petal, is a feature that is in an especial manner a characteristic of our various species of violets, and one possessed by very few other flowers. The flowers of the heart's-ease are in due course succeeded by the little capsules of seeds. In all the other species of

violet the flowers that attract our attention rarely ever set their fruit; this is produced later on in the year, by small and insignificant petal-less flowers, that would very rarely be noticed at all or their import regarded if a cursory glance fell on them. The capsule opens by three valves, and, if cut across before it is quite ripe for opening, makes a very pleasing section, as indeed do many other similar forms. Our readers, furnished with a sharp knife and magnifying glass of small power, would find in such sections much that would interest and delight them.

The heart's-ease is abundantly met with almost throughout Britain. Though found on hedge-banks and waste ground, it seems in an especial degree a weed of cultivation, hence it will be most freely found in corn-fields and garden ground. It blossoms almost throughout the entire floral season, expanding its attractive little flowers in the early days of summer, and keeping up a succession of blossom until late in autumn.

The meaning of the generic name has already been referred to in our remarks on the sweet violet. The specific name *tricolor*, or three-coloured, needs no comment. The name pansy is derived from the French word *pensée*. Our minds at once turn to the passage in Shakespeare, where Ophelia says, "There's pansies, that's for thoughts." That the thoughts the plant is supposed to suggest are altogether right and pleasant ones may be gathered from its other names, heart's-ease and herb-constancy. It is also sometimes by old writers dedicated to the Trinity, because it has in each flower three colours—like many of the old monkish ideas, a somewhat strained and fanciful one. The plant is in many old herbals called the *Herba Trinitatis*.

The heart's-ease was formerly in great repute as a remedy in asthma, epilepsy, pleurisy, and many other ailments. As the plant was also considered a cordial, and efficacious in diseases of the heart, it has been by some writers supposed that its name, heart's-ease, really owes its origin to no such poetical association of ideas as is ordinarily imagined, but that it is simply a testimony to the plant's curative powers. The balance of evidence however, in the writings of our poets goes far to outweigh this idea. Numerous passages from Spenser, Chaucer, Shakespeare, Milton, and the writings of lesser men, might easily be brought forward did space permit, and it would then readily, we think, be felt that the poetical associations very considerably outweighed the medical — that the heart's-ease was no mere absence of bodily pain, but a considerably more subtle presence and possession, altogether beyond the power of pill or potion to produce or to destroy.

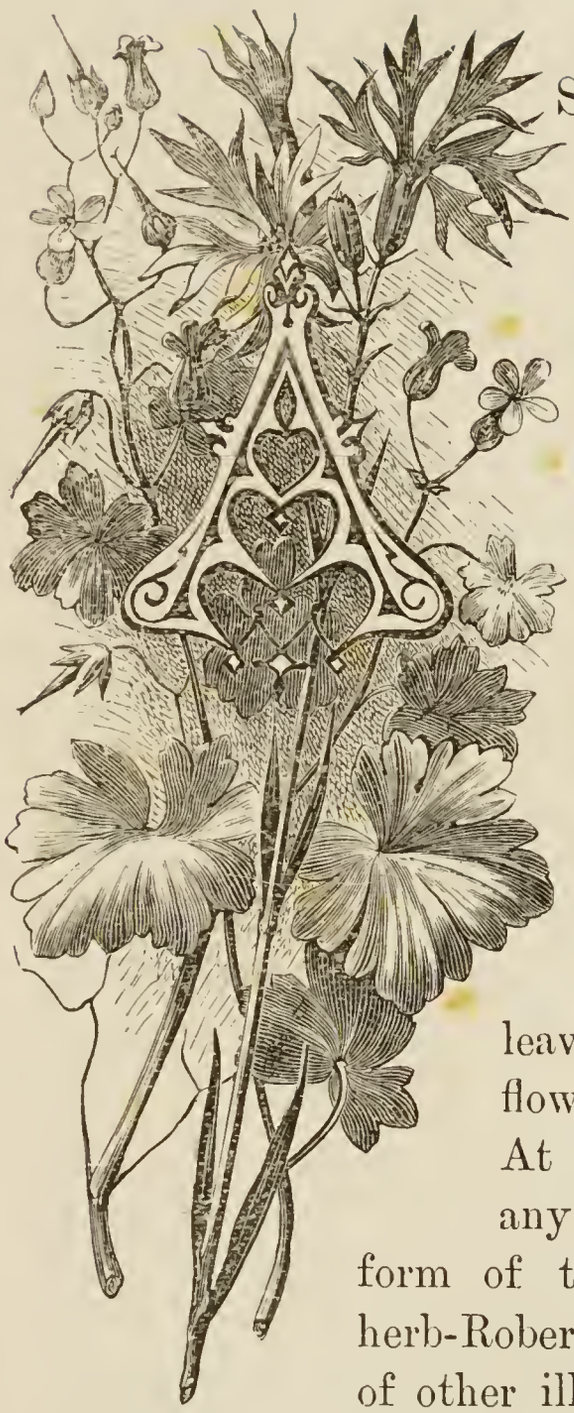




SHINING CRANE'S-BILL AND RAGGED-ROBIN.



SHINING CRANE'S-BILL AND RAGGED-ROBIN.



THE SHINING CRANE'S-BILL AND RAGGED ROBIN.

Geranium lucidum. Nat. Ord., Geraniaceæ.
Lychnis Flos-cuculi.
Nat. Ord., Caryophyllaceæ.

S possibly some of our readers may not have sufficient knowledge of the subject to discriminate correctly between the two species represented so as to be able to say which is which, we may well preface our remarks on the plate by pointing out that the plant with small flowers and rounded leaves is the crane's-bill; the large-flowered plant, the ragged robin. At the same time we imagine that any one who notices the general form of the meadow crane's-bill or the herb-Robert, plants which form the subject of other illustrations in our work, will find little difficulty in detecting a sufficiently satisfactory likeness to those plants in the structure of one of the two here delineated to enable them to give a shrewd guess at

the plant best entitled to bear the name of crane's-bill. Probably, on the other hand, the smallest child or merest novice, if asked to pick out the plant they thought most likely to be called ragged robin, would point to the flower with the large, deeply cut, erratic petals, and the guess, as we have seen, would be a correct one; though, as surmise and knowledge are not quite identical terms, our opening sentence is not an altogether superfluous one.

The shining crane's-bill is the *Geranium lucidum* of the botanist. The generic name is derived from a word in Greek that signifies crane, and alludes to the form of the fruit, which is something like the bill of that bird; while the specific name is the Latin equivalent for bright or shining. Its specific and common English names arise from the smooth and polished surface of both leaves and stems. The plant will, under ordinarily favourable conditions of growth, be found in flower by the beginning of May, and lasts in blossom throughout the summer.

The plant is an annual, but seeds so freely that it holds its ground almost as effectually as if it were more long-lived. It attains to no great height, as the stems, which fork a good deal, spread out laterally. The stems, like those of most of the crane's-bills, are jointed, swelling at the articulations, and brittle. The leaves are in general form circular, but deeply cut into five lobes or broad segments; the lower ones are somewhat simpler in form. The whole of the foliage is, in the spring and early summer, of a peculiarly bright green, but as the days of June pass away the leaves often become bordered with red, and ultimately the whole plant turns a rich crimson colour. The flowers are small, arranged in pairs, and of a beautifully pure rose tint. The calyx is pyramidal in form, the edges of its sepals forming

very conspicuous angles at their lines of contact. Three of the sepals differ somewhat in form from the remaining two.

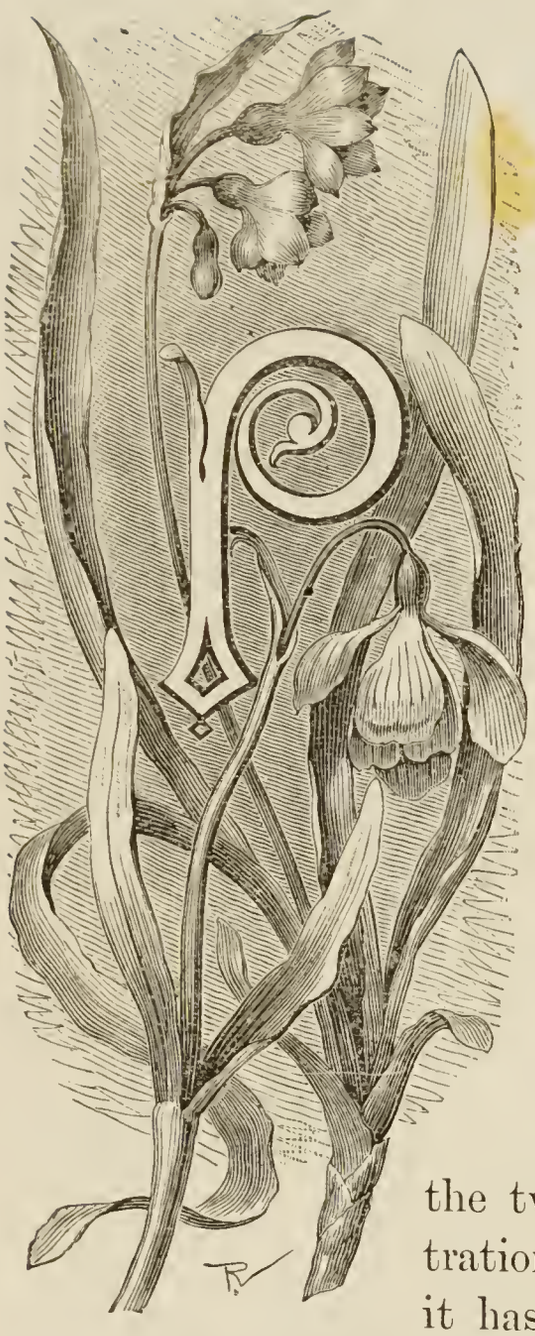
Though at times found in the hedgerow, the natural habitat of the shining crane's-bill is on dry and stony wastes, rocks, and old stone walls, its large masses of shining green or glowing crimson foliage and its small pink blossoms being a beautiful covering to the rugged grey stones that give them support. It is generally distributed, but seems to prefer either a chalk district or a hilly and mountainous tract of country. Several other species of the same genus, and all familiarly known as crane's-bills, may be found. With the exception of one by no means common species, all agree in one conspicuous point: the flower-stem, or peduncle, bears at its summit two lesser stalks, or pedicles, and each of these is surmounted by a flower. This feature, though not absolutely peculiar to the crane's-bills, will practically be found of great service as a means of identifying them; for though it does not quite follow that any unknown plant having its flowers in pairs is a crane's-bill, there is at least a presumption in favour of the idea, while the fact of its inflorescence not being of this character is virtually almost sufficient to prove that it cannot belong to this genus of plants. The following species are, from their commonness, most likely to be met with:—the *G. molle*, or dove's-foot crane's-bill, and the cut-leaved geranium, or *G. dissectum*. The first of these is called in France the *pied-de-pigeon;* both this and the English name are based on the form of the leaf, though the resemblance does not strike us as being at all obvious. In both species the flowers are small, and not very brilliant purple in tint.

The second plant, the meadow lychnis, or ragged robin, the *Lychnis flos-cuculi,* is a near relative of the white lychnis, the subject of another of our illustrations. It is very abundant in most parts of the country where the natural conditions favour its growth, and should be looked for in low-lying lands, moist meadows and pastures, or by the sides of ditches and streams. The general growth of the plant is erect; the stems stand up boldly from one foot to eighteen inches high, and branch but little. The leaves are but few in number, arranged in pairs on the stem, and very narrow in proportion to their length, of the form that is known botanically as lanceolate. The flowers are arranged in a loose head of blossoms. The flower has five large and spreading petals of a bright pink colour, each petal being deeply cleft into four long and narrow segments, the feature that has prompted the familiar name of the plant. The calyx has ten conspicuous ribs and furrows, and, like the upper part of the flower-stalks, is of a dull reddish-purple colour. The ragged robin is in blossom during the spring and early summer. It is a perennial.





SNOWDROP AND SNOWFLAKE.



THE SNOWDROP AND SNOWFLAKE.

Galanthus nivalis ; Leucojum æstivum.
Nat. Ord., Amaryllidaceæ.

PROBABLY to many of our readers the two plants here figured will be better known as garden blossoms than as real wild flowers. Like the primrose and the foxglove, their beauty and grace have led to their wholesale introduction into the garden ; they are, nevertheless, true wild flowers, as truly wild as any buttercup. It has been contended by some writers that the snowdrop, the smaller of the two plants represented in our illustration is probably not indigenous ; but it has, in any case, got so thoroughly naturalised amongst us that, whatever may have been the state of affairs five hundred years ago, it is now as much a wild flower in our midst as any of the other plants mentioned in the British Flora, and as such is always included without question amongst them. The snowdrop is a perennial. Its graceful little drooping flowers must be sought for in orchards, shady pastures, woods, and

early summer, so the specific title of the present plant indicates the early period of the year when its graceful little blossoms peer above the snow-covered ground, as pale and pure themselves as the soft mantle that covers all but the tips of their leaves and pendant flowers, *nivalis* being a Latin adjective that signifies relating to or resembling snow. The generic name is Greek in its origin, and signifies milk-flower.

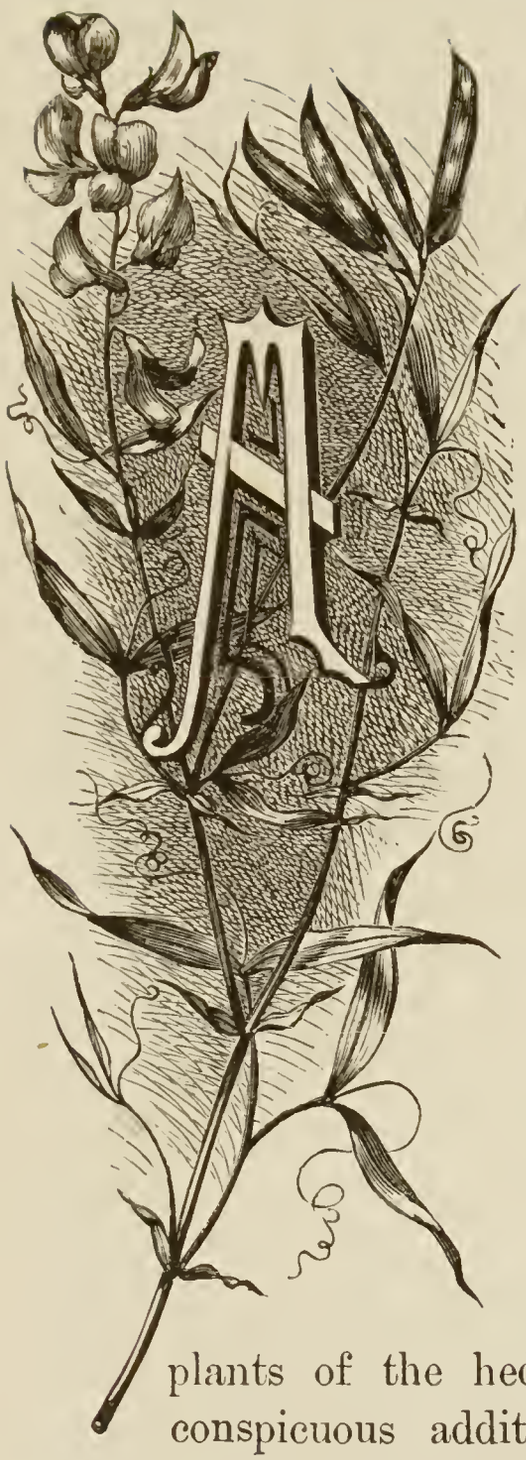
From its early appearance and delicacy, the snowdrop has attracted the notice of several of our poets. Of these we can now only mention Drayton, Langhorne, Shelley, Thomson, and Wordsworth, leaving our readers to look up the allusions for themselves.

As the snowflake and the snowdrop would never, under any circumstances, we imagine, be found in flower together, our plate is so far inaccurate; but as the two plants were so closely related botanically, so similar, too, both in appearance and in name, it seemed, on the whole, advisable to represent them on the same plate, trusting to the descriptive text to clear up any misconception that might otherwise possibly arise.





MEADOW-VETCHLING.



THE MEADOW VETCHLING.

Lathyrus pratensis. Nat. Ord., Leguminosæ.

ALTHOUGH the plant here figured has full claim to rank with our commonest species, it will probably have scarcely received at the hands of many of our readers the full attention that it deserves, belonging as it does to a very numerous order of plants, the Leguminosæ, and being therefore often merely noticed as "some sort of wild pea or vetch, you know." The richness of the colour of the blossoms and the quaint forms of the leaves are, however, points of detail that amply repay a closer inspection, while its luxuriant growth as it trails over and amongst the other plants of the hedgerow, renders it a beautiful and conspicuous addition to the flora of the country lane. Though called the meadow vetchling, it would, perhaps, could the past be effaced, be more appropriately called the hedge-pea, since it cannot really be considered a meadow plant in any true sense—in the sense, for instance, that the

cowslip, the buttercup, or the daisy are. Its true habitat is the hedgerow, where it can find the support that it needs. Almost all these plant names, however, have received the sanction of so many writers, and have been in use for so many years—in some cases centuries—that any attempt, however desirable it might appear in certain instances to effect a change, would be but useless labour; while in most cases it would be not useless merely, but eminently undesirable, introducing an element of confusion into botanical nomenclature, and destroying at the same time many literary associations. The scientific name of the plant is the *Lathyrus pratensis*. The generic name is derived from the name bestowed on this or some kindred plant by Theophrastus, the disciple and successor of Aristotle. The specific name merely refers to the habitat of the plant, from the Latin *pratensis*, that which grows in, or pertains to, a meadow. These names were first definitely assigned to the plant by Linnæus. A very numerous and appropriate class of plant names arises from the allusion to the place where the plant may be found; of these we need only indicate some instances. Amongst the specific names of systematic nomenclature we get, for example, not only the *pratensis* that has led us to point out this feature, but many others, such as *arvensis*, *aquatilis*, *sylvestris*, *fluitans*, while the familiar English names, water-buttercup, cliff-poppy, pond-weed, wall-flower, rock-rose, corn-marigold, marsh-mallow, bog-pimpernel, house-leek, wood-sage, and many others, carry their meaning so obviously to the mind that any explanation of terms so palpable in their origin is altogether superfluous. There are some few names which owe their origin to the locality in which the plants may be found,

no less than those we have just instanced, but which do not at first so clearly convey their meaning; bulrush is an example of this, for it was originally written pool-rush; the modern name is but a corruption. The common brake also in like manner owes its name to the locality in which it flourishes, the derivation lying doubtfully between *brake*, the German and old English word for underwood, and *brach*, uncultivated ground; but in either case suggestive of the home of the plant.

The meadow vetchling will ordinarily be found in flower by the second or third week in May, and once in blossom continues throughout the entire summer, and indeed far on into the autumn, as the plant may very frequently be met with in blossom right up to September, and even, though more scantily, in the beginning of October. Though so beautiful and graceful in itself, the old adage, "Handsome is that handsome does" is herein to some degree borne out, for an old writer, Parkinson, tells us that it was called in his day the "ramping wild vetch" by the country people, "because it is the most pernicious herbe that can grow on earth, killing and strangling corne or any other good herbe it shall grow by."

The plant is a perennial, and from its weak and straggling nature, and from the freedom with which it branches and develops into a rather thick and tangled mass, does probably cause some appreciable degree of injury, more especially when it springs up amidst a growing crop, and mats it together with its clinging tendrils. The flowers, bright yellow in colour, grow on a long peduncle, and vary in number in each bunch, from about six in feeble plants to about twice that number when the plant is found under favouring circumstances, moist

pastures and hedgerows being the spots where it more especially flourishes. The stipules, the leaf-like bodies at the base of the leaf, the point at which it springs from the stem, are arrow-headed in form, the lower segments of each pair being often curiously crossed and locked together. From these stipules rise branched tendrils, each tendril before it branches throwing off a pair of very long and narrow leaflets. The pods, or legumes, that succeed the blossoms are green in colour, and each contains several seeds.

The broad-leaved everlasting pea, a well-known favourite in cottage gardens, belongs to the same genus, and so too does the narrow-leaved. The first of these, though at times met with apparently wild, has no real claim to a place in our indigenous flora, but the second, the *Lathyrus sylvestris*, is a true native.





CELANDINE.



THE CELANDINE.

Chelidonium majus. Nat. Ord., Papaveraceæ.

WE have already seen, in our comments on the lady's-smock, that a considerable amount of ambiguity and difficulty has arisen from the fact that that and one or two other plants flowering at about the same time are all called cuckoo flowers, and a very similar difficulty has arisen in the present case. The word celandine is derived from the Greek word for a swallow, because the flower is supposed to come into blossom about the same time that the swallows return to us in each recurring spring; and as several other plants are then flowering as well as this, the name has not been confined to the present species. One of the earlier buttercups, a plant we have already figured, though more correctly called the pile-wort is almost as well-known by the name of celandine. The pile-wort is ordinarily called the lesser celandine as a

distinction, but in any case confusion is caused—a confusion that, had more care been taken in floral nomenclature in the olden time, need never have arisen, as the names are the only common point of resemblance between the two plants. The true celandine, the subject of our present illustration, is known botanically as the *Chelidonium majus*—*Chelidonium* having the same derivation and significance as celandine. On this account, too, the plant is sometimes in old herbals called the swallow-wort. Some writers go so far as to assert that the celandine not only arrives, but departs with the swallow; naturally such a statement can only be an approximation to the truth, as so many climatic and other influences arise with potent force to set aside the old theory. The celandine will ordinarily be found in flower by the third week in April, and lasts in blossom throughout the summer; some few specimens being occasionally met with up to the middle of October. The swallows, should the season be mild and open, will ordinarily arrive in the second week in April, and they leave us again about the middle of September, though some few may often be found for almost a month after the departure of the main body. The dates, therefore, sufficiently coincide to satisfy the not too exacting requirements of popular belief. The idea has arisen in our minds, and, so far as we are aware, it has never been pointed out before, that a further point of resemblance, that would have been at least confirmatory to the minds of the older writers, if not in itself sufficient to build a name on, may be found in the fact that both bird and plant seem to have an especial liking for the company of man. The swallow builds fearlessly and confidingly beneath the eaves of the cottage roof, and the

celandine, difficult as it is to account for the fact, is rarely, if ever, found away from the neighbourhood of man; its favourite spots being the cottage hedgerow or the waste ground around farm and other buildings.

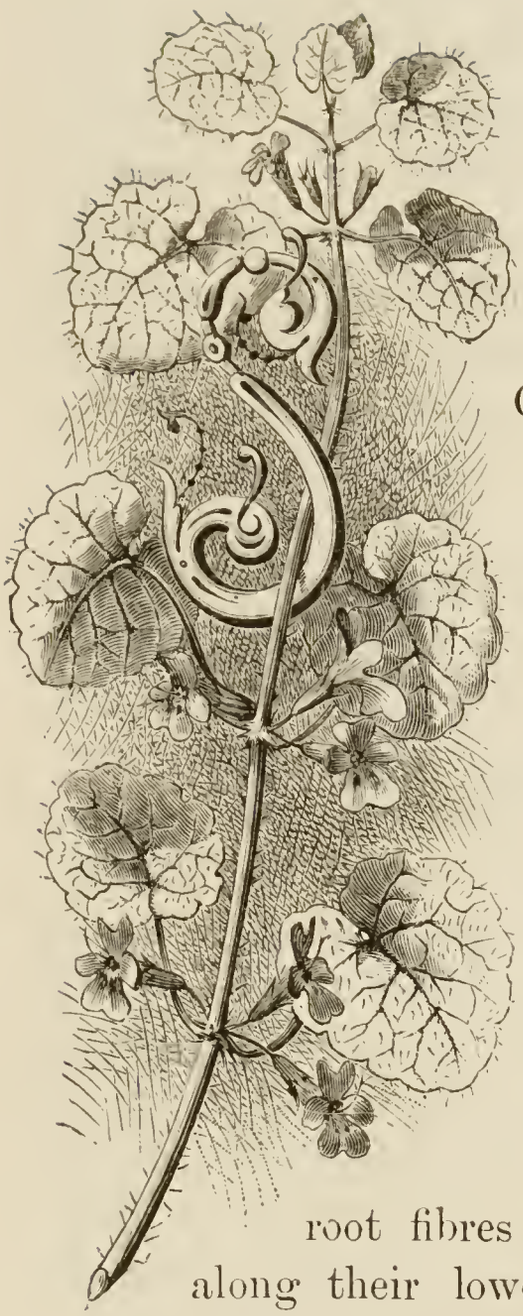
The celandine belongs to the same natural order of plants, the *Papaveraceæ*, as the poppies. The plant is a perennial. The general growth of the plant is erect, its stems tender and delicate-looking, branching a good deal, and attaining to a height of from one to two feet. At the various points at which branches are given off the stem is swollen and jointed, and breaks very easily. The whole plant, but especially the stem, is full of a bright orange juice, that issues immediately and in considerable quantity directly the stems are anywhere broken across. This juice stains the hands a good deal, and if the tip of the tongue be placed in contact with it, the taste is not only exceedingly acrid and nauseous, but lasts a long time in the mouth. The tender nature of the plant was very well impressed on ourselves personally, as the sketch from which the present illustration was copied was made from the fourth handful of the plant we brought home with us; in three preceding attempts the plant withered before we were able to make any use of it. The leaves are very thin in texture, and droop almost directly they are gathered. The leaf is composed of a terminal leaflet and several laterals, and is of a very unusual and beautiful form. The flowers are small and very fugacious, though, as a set-off to the disappointment of finding on arriving home with a specimen that all its blossoms have disappeared, the buds will, if the plant be placed in water, readily expand. The blossoms have four bright yellow petals arranged in the form of a cross, and the novice might possibly at first assign the plant a

place amongst the crucifers, but the dense mass of stamens, a feature never seen in the *Cruciferæ*, would in itself be sufficient to demonstrate that the plant has no such affinity. The inflorescence is umbellate, *i.e.*, all the little stems of the flowers in each bunch spring from one common point, as in the flowering rush and the numerous plants, such as the carrot, hemlock, parsley, water-dropwort, fennel, and chervil, that form, with many others, the great natural order of the *Umbelliferæ*, an order so-called from this form of inflorescence being common to all the species. The inflorescence of the celandine, of the cherry, and of the flowering rush, is in each case in like manner umbellate, but they all differ from each other, and from the hemlock or carrot, in so many respects that each belongs to a distinct order, the many points of divergence being much more marked than the one point of resemblance. On the fall of the flower of the celandine it is succeeded by a pod about two inches in length. As the plant remains in blossom for a very considerable time, the bud, the fully expanded flower, and well-developed pod, may often all be seen together in one umbel.





GROUND-IVY.



THE GROUND-IVY.

Nepeta Glechoma. Nat. Ord., Labiatæ.

SO abundantly is the ground-ivy distributed that though it is by no means a conspicuous plant, it is almost certain sooner or later to attract the attention while the eye is scanning the hedge-row. The plant is a perennial, and grows so freely that a large area is quickly covered with a carpet of its leaves. The stems are procumbent, a botanical term applied to such as are feeble in nature, and trail throughout the greater portion of their length along the ground, and root fibres are freely given off at intervals along their lower portion, hence, like the strawberry or banyan tree, this power of re-rooting itself enables it to spread and retain possession of the ground covered at a long distance from the parent root. From these running stems the upright flowering stems are given off; these flowering stems rarely attain beyond eight inches in height, though at times, when the plant is struggling for existence amidst tall grass or other herbage,

our estimate may be considerably exceeded. The general outline of the leaves is almost a circle, though the modification produced by the two conspicuous rounded lobes at the base has led to the foliage often being rather described as reniform or kidney-shaped. The outline of the leaf is not simple in character, as in the privet and many other leaves, but is made up of a considerable number of rounded lobes or projections. The lower leaves of the plant are often much larger than the others, and are generally on much longer stems; all the leaves are arranged on the stem in pairs, and have a rough and hairy or downy texture according as they are old or young. The whole plant has a very perceptible and not altogether agreeable odour; this naturally becomes still more noticeable if the stems or leaves are bruised at all. All the leaves of the ground-ivy are of the same general character; in many plants a very considerable difference in many ways may be observed between the upper and lower leaves, the radical or floral forms, but any such difference is very slightly marked in the present example. The flowers are almost always a shade of purple, though, like the heath, hyacinth, and almost all other purple flowers, they are at times found of a pure white. The blossoms are placed in a little semicircle at the point whence the leaves are given off from the stem; from three to six blossoms will ordinarily thus be found together, but it is a distinct and noticeable feature in the ground-ivy, as opposed, for example, to the yellow nettle, and many other plants of the order, that the flowers never form a complete ring round the stem, the whorl of flowers is always unilateral, never circular. The flowers are bi-symmetrical in form when seen in front view, not radiate as in the buttercup, and of

the type known as labiate, from a remote resemblance to a human mouth and lips. In this form of corolla the upper lip is ordinarily divided into two parts, and the lower one into three, and the blossom of the ground-ivy is no exception to this general characteristic. The whole order consists of flowers having this lip-like form; they are hence termed *Labiatæ*. The white and red nettles already figured, and the bugle, the thyme, the betony, and the self-heal are other examples of the order.

The ground-ivy may be met with freely on hedge-banks and waste ground throughout Britain, the flowering season being from about the middle of March to the middle of July. The flowering shoots are often very rich in colour, the stems and leaves are of various shades of red and purple, and render the plant very conspicuous when growing in a large mass amidst the bright green leaves of the surrounding plants. Great variation of colour exists; in some cases the whole of the flowering stem is rich with this warm glow of colour, while in others only the few crowning leaves at the top of the spray show any deviation from the general green tint of the plant. It would appear ordinarily that when the plant is exposed to strong sunlight this richness of colour manifests itself, while the plants that grow in shady spots are larger and ranker, but without this beautiful variation of colour.

The ground-ivy is the *Nepeta Glechoma* of science, a name that is wrapped in a very decided degree of obscurity. Some writers affirm that the generic name is so called from Nepi, a town in Italy, though what a town in Italy has to do with the ground-ivy is a point that they do not enlighten us on; other authorities, no less valuable, derive it from *nepa*, a scorpion, affirming that the plant was a

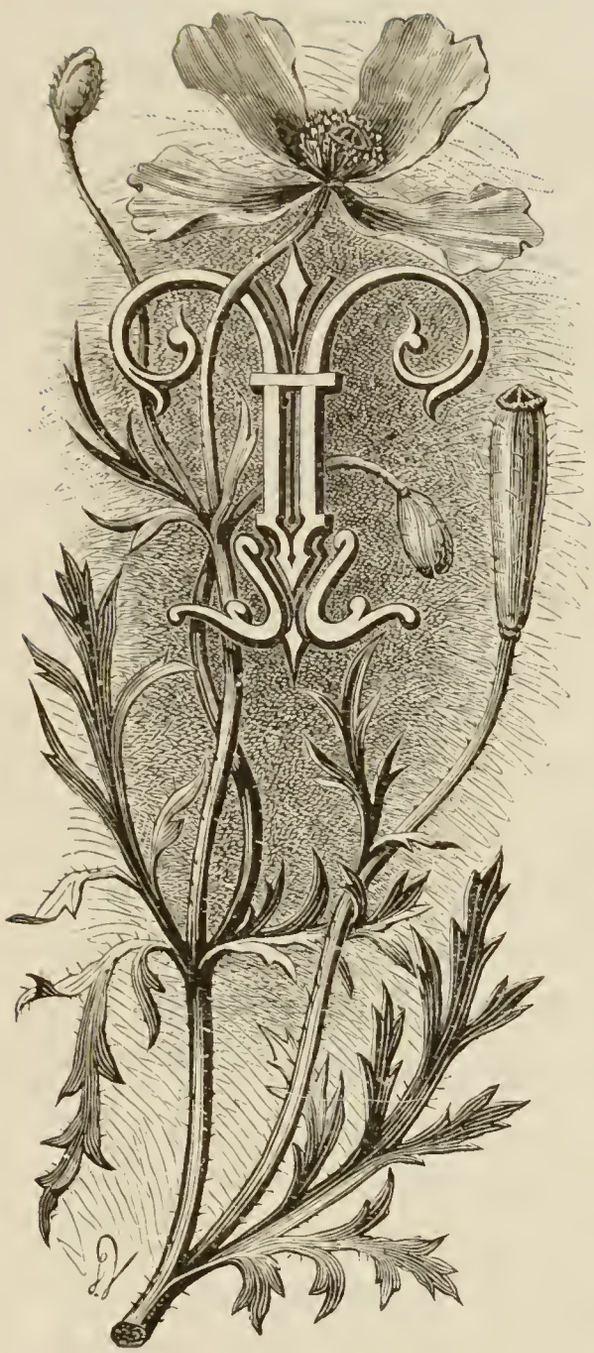
specific against the bite of this creature. As the plant grows freely in many other countries, and as in our own happy land in the good old times the scorpion was believed to be bred from many substances that are now credited with no such potent effect, the plant and the animal could actually or theoretically have been brought together, and that, at least, is a point that renders the etymology not hopelessly impossible. The remedial effect of the herb is a further point that may or may not be supported by facts. The common English name is a sad misnomer, as the plant has nothing whatever to do, botanically, with the ivy, nor, indeed, is there anything but the most superficial resemblance, not more, indeed, than the fact that the present plant and the ivy are both at times found trailing on the hedge-bank. In all other respects they are widely different.

Our ancestors used the plant for flavouring beer; it was supposed not only to improve its taste, but also to render it clearer. In old herbals the ground-ivy has a great many names, but as they are never used at the present day it is scarcely worth while to dwell on them at all, though some of them are not altogether lacking in history and interest when analysed.





PRICKLY-HEADED POPPY.



THE PRICKLY-HEADED POPPY.

Papaver Argemone. Nat. Ord., Papaveraceæ.

THE common scarlet poppy we have already figured, and the subject of the present illustration, though one of our common British poppies, affords a marked contrast to that fine species. The prickly-headed poppy is the weakest in growth, and ordinarily the smallest of all our poppies. Though not unfrequently met with in cornfields and on waste ground, it is scarcely so common as the *Papaver Rhœas*, while it does not by any means force our attention to it by its brilliancy, as that species does. The prickly-headed poppy is an annual. The foliage is scanty, the leaves much simpler in form than in the common species, the segments into which they are cut being few in number. The flowers have four petals, and these, from their great length in proportion to their breadth, give the flower a very decided

cross-like form, instead of the circular form that, from the greater breadth of the petals, is seen in the other species of the genus. The red is by no means so intense as in the *P. Rhœas*, and each petal has ordinarily a rather large and conspicuous dark, almost black, spot at its base. The capsule that succeeds the flower, and contains the seeds, is long and cylindrical, and has its upper half studded with bristly hairs. The plant will generally be found in flower during the months of May, June, and July. The botanical name of the prickly-headed poppy is *Papaver Argemone*. The generic name is open to a certain amount of uncertainty. It was first bestowed on the genus by Linnæus, and in many cases the motive that led to the adoption of the various names by the older botanists is now obscure. It has been suggested, however, that the plants were so named because, from a certain narcotic quality that all the poppies, more or less, possess, the seeds were administered in the infantile pap, in Celtic, *papa*, as a provocative of sleep, while on the other hand, on searching out the derivation of the name of this simple food, we find it suggested that it is called *papa*, because the thick and milky nature of the preparation is so called from its resemblance to the milk-like juice of the poppy. We have arrived therefore at the unsatisfactory conclusion that poppy derives its name from pap, and that pap derives its name from poppy, and have no clue as to which suggestion should claim priority, although the first derivation seems to be the least unsatisfactory of the two. Another curious instance of the ambiguity that often manifests itself directly we attempt to analyse the meaning of these old terms is seen in the specific name of another member of the genus, the *P. Rhœas* already referred to. It is

derived from the Greek word *rhoua*, a pomegranate, we are told by one authority; it is from the Greek verb *rheo*, I flow, or fall, in allusion to the perishable and fugitive nature of the flower, another writer tells us; while a third accepts the verb, but draws a different conclusion, affirming that it is so called because when bruised, a red juice exudes from the petals.

The genus *Papaver* contains five English representatives, of these we have figured two, the present plant, and the scarlet poppy, or red-weed. As we may have no other chance of doing so, we avail ourselves of the present opportunity of referring to the other members of the genus, as they are sufficiently common to render a brief account of them not misplaced.

The remaining three are called, respectively, the round rough-headed poppy, the long smooth-headed poppy, and the white poppy. The plant we have figured in our present illustration has points of resemblance and of difference to the first two of these. It may, for a moment, be confounded in name, or in looking at illustrations merely, with the round rough-headed poppy, but it will be noticed that its head, or capsule, though rough with bristly hairs, is not round; or it may be likewise mistaken for the long smooth-headed poppy, but it will be seen that its head, though long in form, is not smooth in surface.

The round rough-headed poppy, or *P. hybridum*, is the rarest of our British poppies, it is much more local than the others, and seems to more especially favour a sandy or chalky soil. The flowers are rather purplish in colour, and the capsule, as the name of the plant implies, is globose in form, and thickly studded over with thick bristly hairs.

The long smooth-headed poppy (*P. dubium*) is not

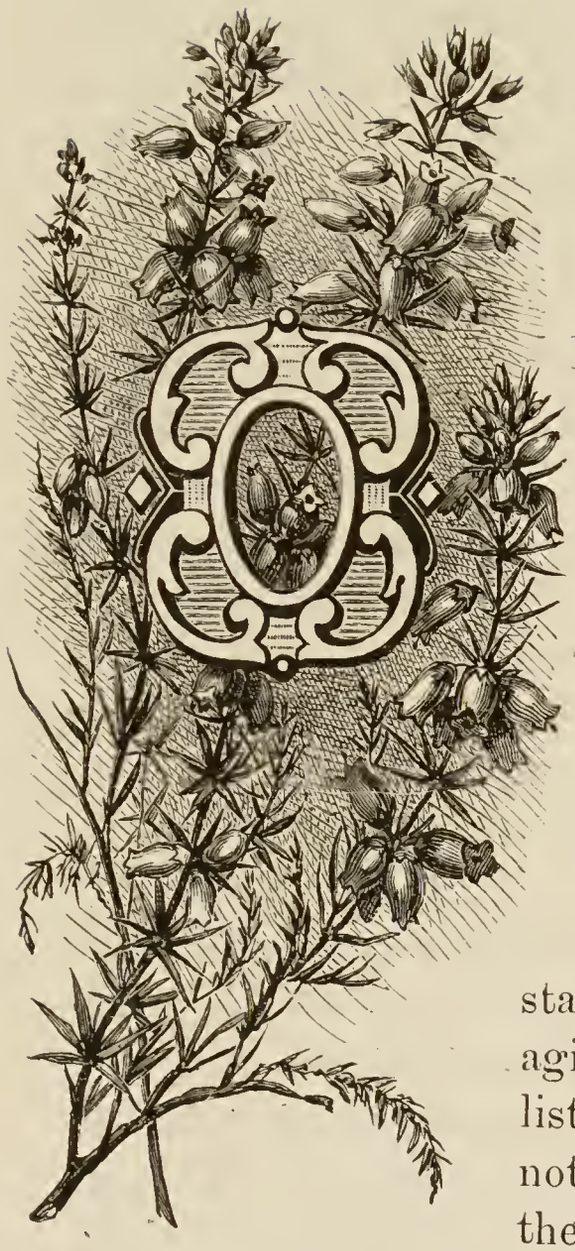
unfrequently met with in cornfields; it bears a strong general resemblance to the common scarlet poppy, but is altogether smaller in its parts, and the flowers are not so deep a scarlet in colour. The capsule, though very similar in form to that of the prickly-headed poppy, is without the characteristic bristles, and the petals are much broader in proportion to their length than in that species.

The only plant remaining to be noticed is the *P. somniferum*, or white poppy. The petals, though ordinarily white, with a purple spot at their base, vary a good deal, and are often found of various shades of violet and red. It is the species that produces the poppy-heads and opium of the pharmacopœia. Though in the first place an escape from cultivation, it appears in several districts of England to have thoroughly established itself.





HEATHER.



HEATHER.

Erica cinerea. Nat. Ord., Ericaceæ.

OF all the delights that the country life affords surely none can exceed the enjoyment, the exhilarating influence, of a ramble over the heathy moorland. The rich umbrageous forest has a great and special beauty of its own, and as we wander beneath the far-stretching overshadowing arms of the giant beeches, and see the startled squirrels leap with perilous agility from bough to bough, or listen to the belling of the deer, not far away, but invisible amidst the stalwart bracken, we cannot fail to feel the beauty of the scene. The sombre shade of its rich purple, however, here and there flecked with gold as a few sunbeams struggle through the canopy of shade, and the almost perfect stillness involuntarily affect us; loud, careless speech seems almost a profanation, and as we stand amid the forest monarchs, see their lofty branches interlacing overhead, and hear the soughing of the summer breeze as it gently stirs their topmost shoots,

the quiet, awed feeling grows upon us, for we stand beneath the roof of a cathedral grander than any human pile, and catch the strains of a harmony no human voices can give us. The open moorland, on the contrary, gives a sense of exhilaration, and the heart and chest alike expand, for before us in the quivering sunlight stretch miles and miles of rolling country, till the purple horizon melts into the azure of the sky, and all the foreground glows with the rich crimson of the heath or the gold of the furze. As the butterflies flit past us, and the "busy bee," busier than ever with a sense of the importance of harvesting as much as possible of the nectar spread around, goes bustling by, while the lark shoots into the vault of heaven, and pours from thence his ecstasy in song, we share the universal happiness, and as we struggle knee-deep through the heather, and draw in deep draughts of the pure air, the mere sense of living becomes an exquisite enjoyment.

Our readers, possibly, at this point may say that this sort of thing is all very well, but what about the heath itself, the ostensible cause? All that we know about the heath shall be duly set down in good time, but if our feeble attempt to describe the home of the heath shall send our readers in quest of it themselves, we shall have done them a far greater service than any pictured presentment or verbal description we can offer them is worth.

Though it is now some years since we saw it, we remember perfectly the curious effect we once observed on the North Welsh coast. When at sunset the mountains round Penmanmawr were all clothed in purple, one of them nightly assumed a redder tinge than any of the others. At the distance from which we were then viewing the range

the reason of this was a puzzle to us, but we afterwards found, on a closer acquaintance, that this particular mountain was almost entirely covered from head to foot with heather, and that this profusion of intense colour and these hundreds of thousands of small crimson bells, were in the aggregate, sufficient to suffuse the whole mountain-side with a warmer glow than that of its more sparsely-covered neighbours.

Vast tracts of country in Scotland, Ireland, and Wales are covered by the heath, and we meet with it again in the moorland districts of Western and Northern England, and the great stretches of common that are so characteristic of Surrey. It grows generally with the cross-leaved heath and the ling, two other species which we shall hope to introduce to our readers. In colour it is the richest of the three, though in grace of form and delicacy of tint the cross-leaved heath, *Erica tetralix*, is a close rival. All three species flower during July, August, and September. A fortnight often makes a great difference in the appearance of the common, as almost all the plants flower at the same time. If it be visited too early, a mass of green meets the eye; if it be visited too late, the purpled-crimson splendour has changed into the brown hue of decay.

The generic name *Erica* is by some writers said to be derived from the Greek verb to break, a name bestowed upon it from its supposed power of destroying calculus, but others say that the name was given to it from the fragile nature of its branches. We seem to want the proverbial "third course," or what the cookery-books call "another way," for neither of these explanations of the word seems satisfactory: we find no reference of a reliable

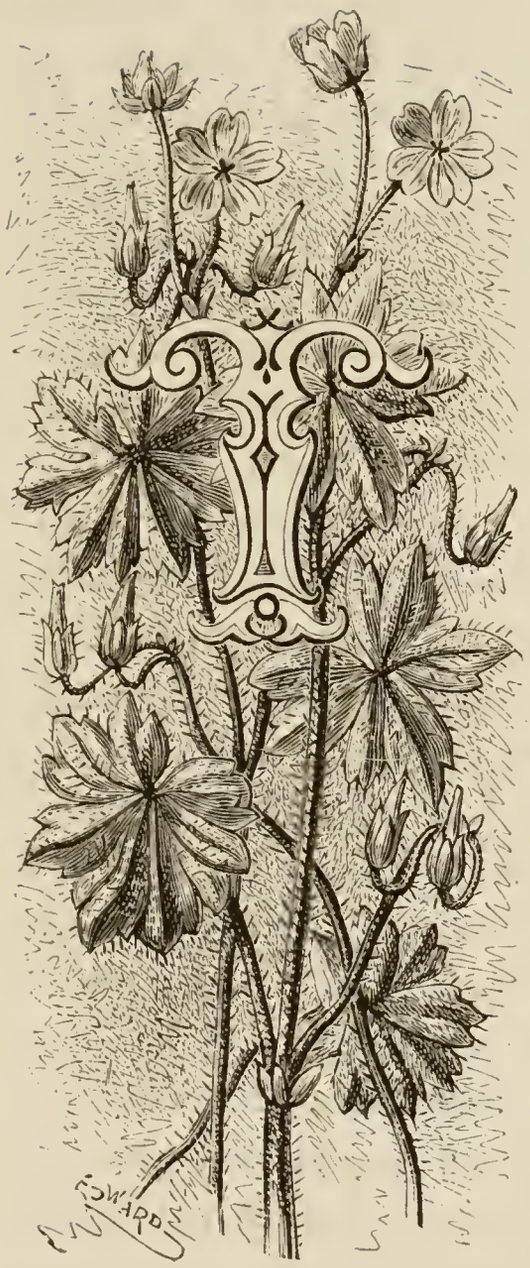
character to its healing powers, and so far from its being a fragile plant, this and another species are largely made into besoms, a service to which they would certainly not be put if they strewed with their fragments the rooms they were supposed to cleanse. The specific name *cinerea* is Latin in its origin, and refers to the ashy grey of the stems.

The heather grows rather bushy, as it branches a good deal, the clumps being about eighteen inches high. The leaves are more pointed than in any of our other heaths; ordinarily three large ones and several smaller ones in their axils spring from one point in the stem, and make a series of rings at short intervals down it. The flowers spring in clusters one above the other, these floral rings being more or less dense, according to the specimen: in some an evident interval of plain stalk may be seen, while in others the clusters are closely set together, and form a continuous mass of colour. The flowers hang downward, and are of a colour that may be either described as purple with a good deal of crimson in it, or crimson with a dash of purple in it. The sepals are small and narrow, but are, nevertheless, from the pendulous habit of the blossoms, very conspicuous. The heather is a perennial.





DOVE'S-FOOT CRANE'S-BILL.



DOVE'S FOOT CRANE'S-BILL.

Geranium molle. Nat. Ord., Geraniaceæ.

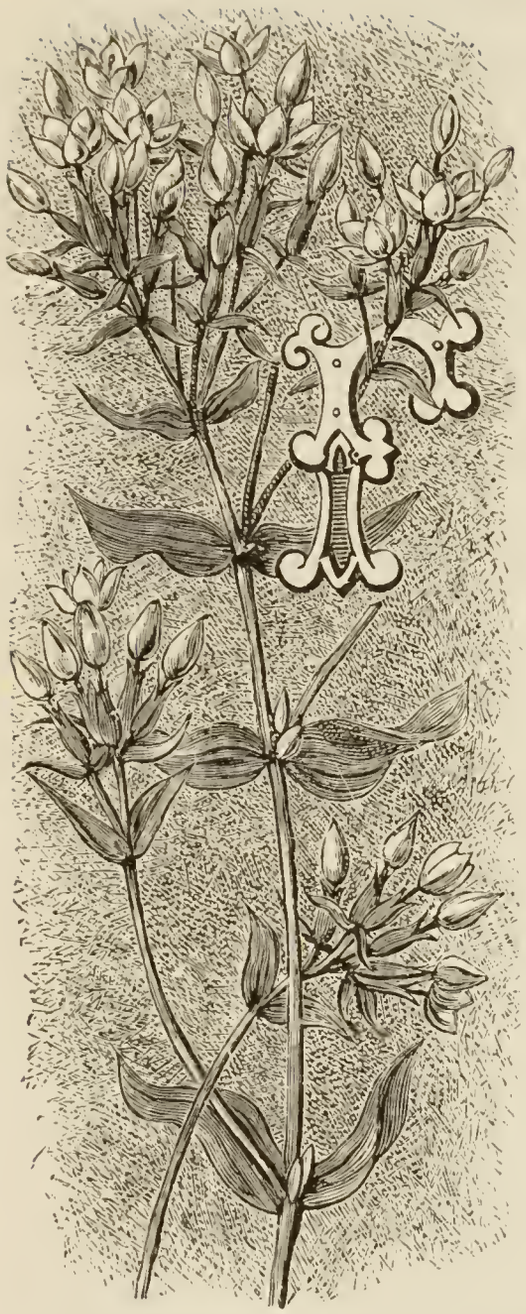
THE dove's foot crane's-bill is one of our numerous species of wild geraniums. Of these we have already figured the meadow crane's-bill, or *G. pratense,* a plant with very large bluish-purple flowers; the shining crane's-bill, *G. lucidum;* and the herb Robert, or *G. Robertianum.* All the twelve species indigenous to Britain agree in one point—namely, their beauty and attractiveness. The blood geranium, or *G. sanguineum,* despite its unattractive name, is a very fine species. It derives its title from its large and deep crimson flowers. Though found in many parts of England, it is not by any means a common plant, though it bears transplanting and cultivation well, and may much more frequently be found in the garden than in a wild state. It is found on high ground in dry woods and on limestone rocks, flowering freely in the most inaccessible places during the month of

by the roadsides, its deep veins and hairy leaves often catch a deal of dust, making it look greyer than ever. The large root-leaves most conspicuous, clusters of them all showing in plan almost as circles. Flowers very fugacious; had to bring three pickings home to do this by, and then learnt by experience that they should be done instantly, as they closed almost directly, never reopened, and some fell off. Leaves, too, very delicate, soon curl up, but unfold again after being some little time in water. Directly after flowering the sepals fall well back, but close tightly up again and get a good deal larger as the fruit developes. Flowers rarely ever more than half expanded. Sketched May 24, but observed the plants about ten days earlier. Leaves all covered with downy hair, but much shorter than that on the stems. Great many leaves all spring from radical point, and in the midst of them a few flowering stems; radical leafstalks about five inches, flowering stalks about nine inches, but all very unaspiring and humble-looking." A mere list of the names of the various species would not be very interesting, nor could we hope to give much idea of them from any verbal description.





CENTAURY



CENTAURY.

Erythræa Centaurium. Nat. Ord., Gentianaceæ.

FEW of our wild flowers make a gayer appearance in proportion to their size than the centaury, as its slender stems are crowned by a mass of buds and starry blossoms, that, by the beauty of their colour and the grace of their form, assert themselves conspicuously amidst the surrounding verdure. The centaury should be searched for in dry pasturage, in sandy and barren fields, on heaths, and more rarely in the open spaces, in woods. It is an annual, and flowers from the latter part of June, through July and August, and often well into September; and it is commonly distributed throughout Britain, where the conditions are favourable to its growth. It is a distinguished adherent to the good old principle of "early to bed and early to rise," and proves its efficacy as far as healthiness is concerned; for its early retirement for the day (generally about three o'clock in the afternoon) by no means impairs

its vigour, and if its health does not suffer then doubtless it gains the two other points in the adage, and is both "wealthy and wise," for health is wealth, and its preservation is wisdom. It closes, too, in damp weather, and whenever the sky is overcast. Culpepper, in the fantastic blending of botanical science with astrological folly, so characteristic of the writings of some of the old herbalists, asserts that the plant is "under the dominion of the sun, as appears in that the flowers open and shut as the sun either sheweth or hideth his face." The "dominion" in this case has some little show of reason, but in most instances the assignments of the plants to various heavenly bodies appear of the most arbitrary nature; thus the little celandine is a plant of Mars, the chickweed is under the dominion of the moon, cinquefoil is an herb of Jupiter, the columbine owes allegiance to Venus, and the cross-wort is a plant of Saturn.

Work of an artistic nature is best done in a room having a northern aspect, as the light is more equable; but we soon found that we need expect no co-operation from our little centaury in favour of that idea, for piece after piece that we brought home we found rapidly closing, and it was only when we took our water-jar and its contents into a room with a southern aspect, and stood them in the direct sunlight, that the flowers could be induced to remain open.

The root of the centaury is fibrous and woody, and from this the stiff and upright stem ascends to a height of from seven or eight inches to a foot. The stem is smooth to the touch and angular in cross-section; it branches considerably at the summit, though the lower part is ordinarily without any lateral developments of sufficient size and importance to break the rigidity of its aspiring ascent.

The lowest leaves are broader than the others, and form a spreading tuft at the base of the plant, while the smooth and stalkless stem-leaves grow in pairs at somewhat distant intervals on the stalk. The stem-leaves are often very upright in general direction, as may be seen in the lowest pair in our illustration, and all have the three principal veins or nerves very sharply indicated on their upper surfaces. The flowers are borne in numerous clusters on the freely-forking stems, and form a rich-looking terminal mass of colour. The calyx is composed of one piece, but this is deeply cut into five pointed segments; these segments taper towards a point instead of spreading outwards, as we find them doing in so many other plants. The whole forms a long and slender tube. The corolla, too, is tubular for some little distance, and then expands into a broad star-like form, the five sharply-cut segments in which it terminates standing boldly out. Though the flowers of the centaury are ordinarily a rich yet delicate pink in colour, we may occasionally come across a specimen where they are pure white. Curtis, in his "Flora Londinensis," speaks of this variation from the type as "not uncommon," but we do not ourselves remember having ever seen an example of it; and Parkinson, in writing of the plant, says that "it is found in our owne countrie in many places, the ordinary sort almost everywhere in fields, pastures, and woods; yet that with the white flowers more sparingly by much than the first." He is very careful, too, to make us understand that this colour-variation is, so to speak, an accident that concerns the flowers alone, and holds out no justification whatever for considering it a different plant at all, for, in speaking of it, he says with quaint decision, "This small centory differeth not from

the former, neither in stalke nor leafe, neither in forme or height, but only in the colour of the flower, which is white as the other is red." The stamens are five in number; their anthers have a curious way of twisting themselves round after they have shed their pollen. This spiral twist is a very marked feature in the genus; though a point too small to show in our illustration, it may be readily noted in the living plant. It is one of the distinctive points between the plants of this genus and those of gentiana, many of the plants of which greatly resemble the centaury in general structure. The style is single, but terminates in two stigmas. Almost all the plants of the order *Gentianaceæ* possess eminently bitter and medicinal qualities, and the centaury is no exception. It is, indeed, so bitter that the old herbalists call it *fel terræ*, or earth-gall, and the Anglo-Saxon name is equivalent in meaning to this. As this bitterness had a healing and tonic effect attributed to it, we sometimes find the centaury called the *Febrifuga;* Culpepper, we see, says of it, "'Tis very wholesome, but not very toothsome."





ORPINE.



ORPINE.

Sedum Telephium. Nat. Ord., Crassulaceæ.

THE plant here represented is one of the numerous species of house-leeks, of which the common stonecrop, another plant in our series, supplies us with a second example. They are also called collectively stonecrops. The first name refers to the habit that many of the species, and notably the *Sempervivum tectorum*, or common house-leek, have of springing up on old thatched roofs or the tops of walls. The first half of the word is sufficiently explanatory in itself; the second half is from the Anglo-Saxon *leac*, a plant, literally therefore the house-plant. The second name, the stonecrop, will need no explanation to those who have seen the old stone walls and rocks in many parts of the country one mass of golden blossom from the flowers of the *Sedum acre*, or common stonecrop. Of the stonecrop we have more to say elsewhere, but as the house-leek does not appear in our series, we may just pause to refer to it. It is a native of the mountain-ranges of central and southern

Europe, but the strangeness of its growth and its quaint appearance have led to its wide introduction, and it may now abundantly be found throughout the country, its large rosettes of great fleshy leaves being prominent on many an old roof in country districts.

We write these lines in a district surrounded by great swelling chalk downs that appear to cut it off in its isolation from the rest of the world, and the whole district is permeated with superstitious folk-lore; one example of this will suffice. We were struck with the beauty of some flowering-stems of house-leek on a cottage wall, and, not then knowing their occult power, were desirous of plucking one or two of them, with a view to closer examination, and a possible sketch. We at once found, however, that this was a totally inadmissible idea. Two heads of the flowers had, in spite of strong remonstrance, been gathered the previous season, and before the year had run its course a brother and an uncle had died. As the evil appeared to descend upon the dwelling thus violated, we could only bow to circumstances, and leave the household fetish alone.

All the plants of the order have fleshy and succulent leaves, but the orpine is easily distinguishable from most of the others from the fact that while its leaves partake of the fleshy character of all the other species of stonecrop, it has flattened leaves, a peculiarity that is only shared by the rose-root, or *Sedum Rhodiola*. The root-stock of the orpine is perennial, rather large and swollen-looking, and containing within itself a store of nutriment to maintain the plant in the somewhat sterile places in which it may ordinarily be found. The true home of the orpine is in the hedge-banks and on waste ground sheltered by bushes, though the beauty of its flowers and leaves often leads to its being

transplanted to the cottage garden. Our illustration is taken from a field specimen, which we gathered off a hedge-bank. In its wild state the plant is from one to two feet high, but in the garden we have seen it a yard high. The stalks thrown up are numerous, upright, unbranched, round, and solid-looking, and generally a rich red in colour, their upper portion especially being often in addition a good deal spotted and streaked with a deeper red. The leaves are numerous and coarsely toothed. In some plants the upper leaves are rounded at their bases, and are without stems, while in others we find them attenuated and tapering at their bases, and borne on a short stem. In colour they are a bluish green, giving the whole plant when seen as a mass in the hedgerow a somewhat cold greyish appearance. The flowers are carried in compact heads at the tops of the stems, and form a brilliant mass of crimson colour. The spreading and acutely-pointed petals ranging boldly out from the centre, and the ten conspicuous stamens, are very noticeable.

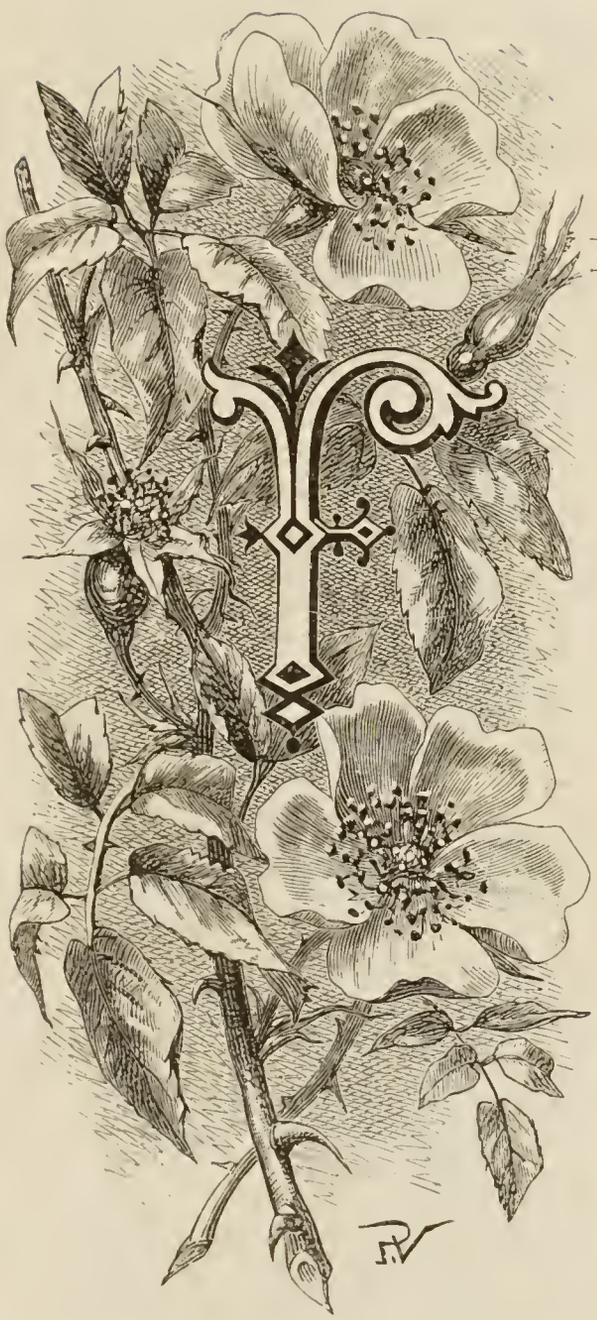
The generic name is derived from the Latin verb *sedo*, to sit, in allusion to the way that many of the plants of the genus appear to drop themselves on rock or brickwork or thatch, with little or no earth in support. The present species, the orpine, has a wide distribution, and in sunnier climes than ours it is a plant of the mountains. Lindley, we see, gives its true habitat as mountainous woods, and Casalpinus, an early herbalist, calls it the *Crassula montana*, but it grows freely with us in lowlier situations. It may possibly have been an introduced plant originally, but it is so tenacious of life that it has become thoroughly at home with us. This tenacity of life has gained for it the name of live-long. We have heard of its being used in

some country districts as a decoration for a fireplace-screen or chimney-board, a framework of wood being covered with the plant. We are told that if this be sprinkled with water about once a week it will continue fresh and green-looking for some months. This vitality led to another old custom. On Midsummer Eve betrothed maidens used to gather two plants of orpine, and set them on a trencher, and estimate their lovers' fidelity (or possibly their own fickleness) by the continued flourishing and well-being or the reverse of one or the other plant. Hence its name got a considerable addition to it, and was sometimes given as live-long-love-long. Its most familiar English name, orpine, is a curious illustration of the perversity we sometimes meet with in old plant nomenclature. It is derived from auripigmentum, the gold-coloured pigment called orpiment, a most appropriate name for the stonecrop and several other plants of the genus, but, by a perverse ingenuity, applied to almost the only plant that does not possess the brilliant hue of orpiment.





SWEET-BRIAR.



SWEET-BRIAR.

Rosa rubiginosa. *Nat. Ord.*, *Rosaceæ.*

FEW of our wild plants are more enduringly attractive than the subject of our present illustration, for it not only possesses all the beauty of form and odour and colour that gives so great a charm to the other species of wild roses that adorn our hedgerows, but adds to these a fragrance of foliage that is peculiarly its own. Hence probably most of our readers will have formed their acquaintance with the plant from having found it cherished in some cottage garden. Like the snowdrop, the foxglove, and many other plants, it pays a certain price for its place in popular esteem, and is rarely suffered to remain in its native *habitat*.

briar appears to delight in open copses, though at times we find it amongst the mass of plants that crowd on each other in some old hedgerow. It seems to be more especially partial to chalk, and its delicate blossoms are displayed during the months of June and July.

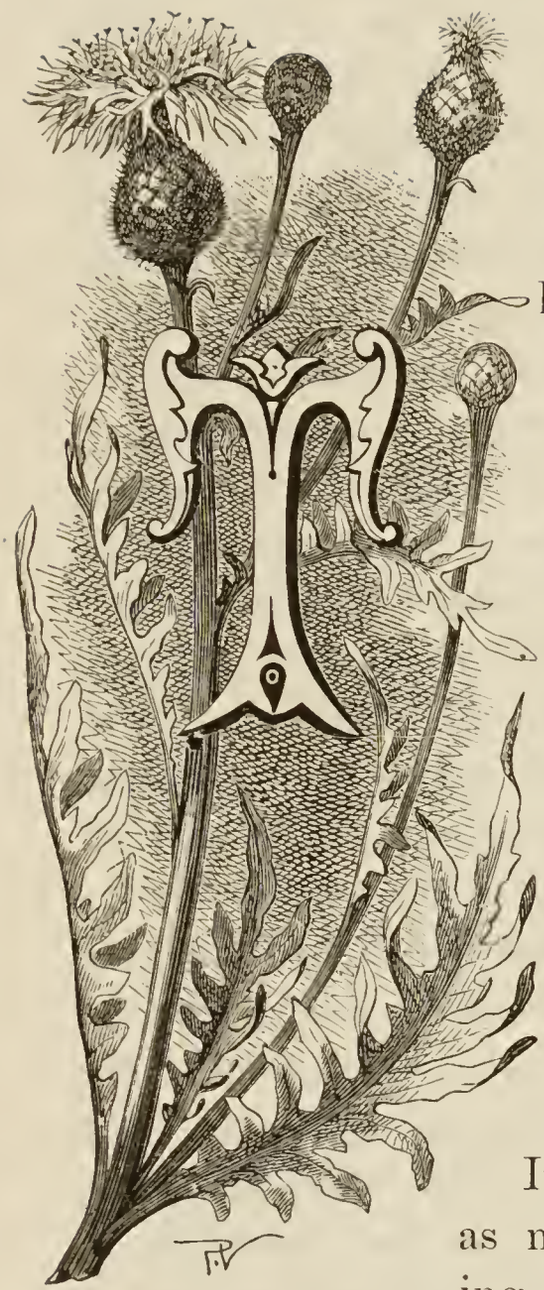
Like almost everything else, the sweet-briar was, in the "good old times," accredited with remedial virtues. Many of these remedies date as far back as Pliny, and subsequent writers adopt them without question, contenting themselves with adding, "as Plinie sayth." The briar-wood pipes so largely used by smokers are made, not from the wood of the present plant, but from that of the tree heath (*Erica arborea*). The wood comes from the south of France, and our English name is a corruption from the French word for heath, *bruyère*.

The sweet-briar is the *Rosa rubiginosa* of the botanist. Its generic name has already received full explanation in our comments on a preceding species of wild rose. The specific name is the feminine form of the Latin word for rusty, a good deal of a brownish-red tint being often found on both stems and foliage, which are, in botanical parlance, rubiginous.





LARGER KNAPWEED.



THE LARGER KNAPWEED.

Centaurea Scabiosa. Nat. Ord., Compositæ.

THE species of knapweed we have here represented, though of very general distribution, is somewhat local. It is found freely almost throughout England, but is one of the rarer plants in Scotland, and seems to thrive best in chalk districts. It flowers throughout the summer and autumn months, and will be found on poor pasturage, on the waste land that may sometimes be met with bordering the hedgerows, in the angles of poorly-tilled fields, and by roadsides.

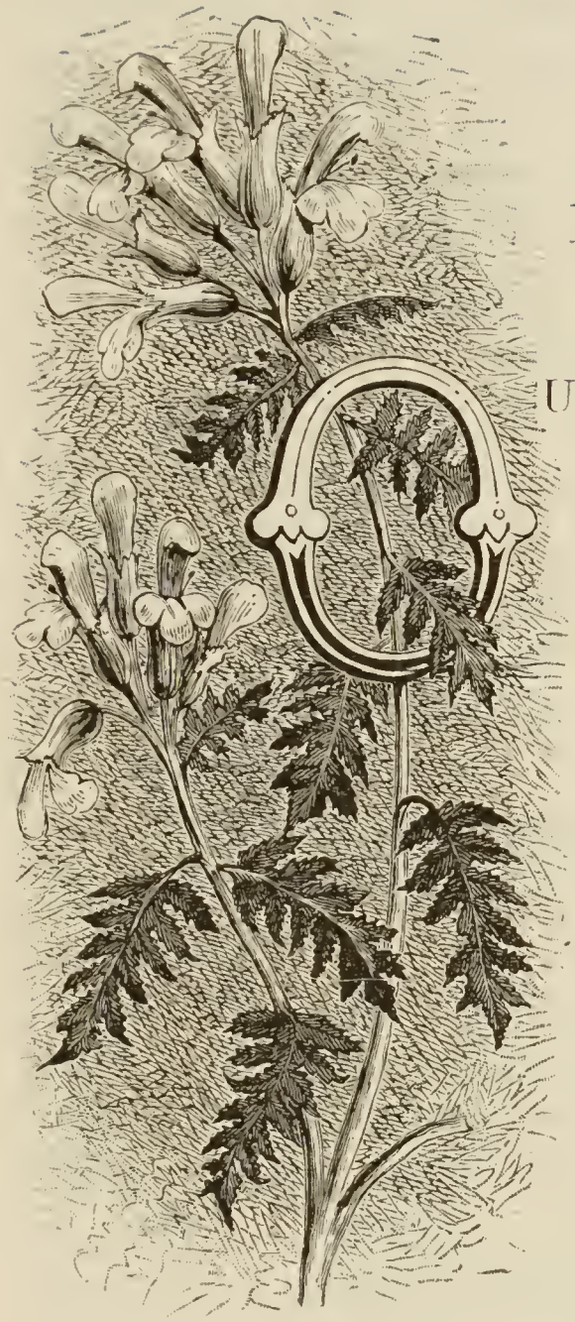
It is a rather tough and stout plant, as may readily be found on attempting to pluck a piece—a matter of no slight difficulty unless a knife be at hand—as no amount of twisting and jerking seems at first sufficient to detach a piece. The stems branch a good deal, and spring boldly up to a height of some three feet or more; it is therefore

everywhere throughout Britain in meadows and hedgerows. The corn-flower or blue-bottle—the *C. Cyanus*—is a very beautiful species, and one of the most characteristic plants of the corn-field; it is hence called *par excellence* the corn-flower. The central part of the flower is bluish-purple, the outer florets large, widely spreading, and of an intensely deep and pure blue, vying in strength and brilliancy of colour with the rich yellow of the corn-marigold or the scarlet of the poppy, its companions of the harvest-field. Other species are the star-thistle, or *C. Calcitrapa*, and the yellow knapweed, or *C. solstitialis*. The first of these, a striking-looking plant, is found occasionally by roadsides and waste places in the south of England; the second seems to prefer similar localities when within the influence of the sea breezes; like the former, it is a southern and somewhat rare plant.





LESSER RED-RATTLE.



LESSER RED-RATTLE.

Pedicularis sylvatica. Nat. Ord., Scrophulariaceæ.

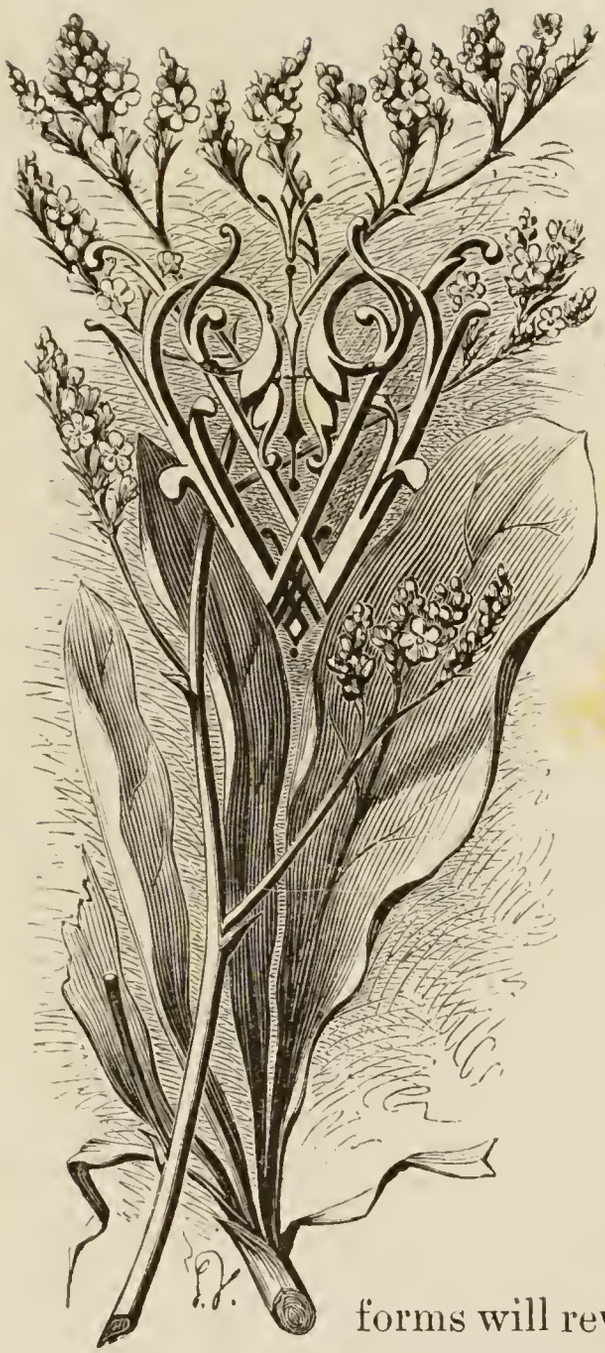
OUR name for the present plant sufficiently indicates the existence of a second species, for a lesser red-rattle implies a greater red-rattle, but we have selected the present species, though it is the smaller of the two, because it is considerably the more common. It is a perennial, and should be looked for in moist pastures and swampy heaths and wastes. The plant begins to blossom in the spring, and lasts all through the summer, so that any time from April to August we ought to finds its delicate pink blossoms. Our expression, "should be looked for," is a sufficiently accurate one, for though the plant is commonly distributed over Britain, its small size does not make it by any means noticeable. The piece we have chosen for our illustration was springing up amongst the roadside grass, and is an exceptionally

sure our readers will be glad to share our find with us :— "The Portugals possesse a certain country in America called Morpian, which is ful of very good fruits, and among the rest the Nana or Pinas. There is also growing a tree whose fruit they call cobyne, having leaves like to those of the bay-tree, and fruit as bigge as a melon, formed like unto an estridge egg, which, although it is not eaten by any of them, yet is very beautifull hanging on the tree. The savages used to make drinking cuppes of them, but besides that they commit idolatry therewith, which is wonderfull and to be lamented, for having emptyed and made hollow these fruites, they fill them with the seeds of milium or some such thing, which, being shaken with one's hand or withe the winde, will make a noyse; then do they fasten a pole into the ground and sticke this fruite full of those seede on the toppe thereof, and fasten about it the most beautifull feathers of birdes they can get. Every house hath two or three of these fruits decked up in this manner sticking on the poles, which they have in great reverence, thinking some god to be in them, because when they are shaken they make a noyse."





SEA-LAVENDER.



THE SEA-LAVENDER.

Statice Limonium. Nat. Ord., Plumbaginaceæ.

WHILE the botanist and the lover of plants who makes no pretension to scientific study alike delight to wander by the hedgerows, to follow the source of some of our winding streams, to search amidst the ripening grain in our cornfields, to peer in the nooks and crannies of some old ruin or of some weather-beaten cliff, or to lose themselves amidst the far-stretching shelter of some noble forest, sure that in all these varying circumstances some interesting and beautiful forms will reward their search, we can readily imagine that the botanist alone would ordinarily turn his steps to the low-lying and dreary-looking salt-marshes, or search the shingle along the sea-coast. Yet these bleak and unpromising-looking spots have a flora of their own: one by no means so extensive as that of many of the localities we have above enumerated—one that

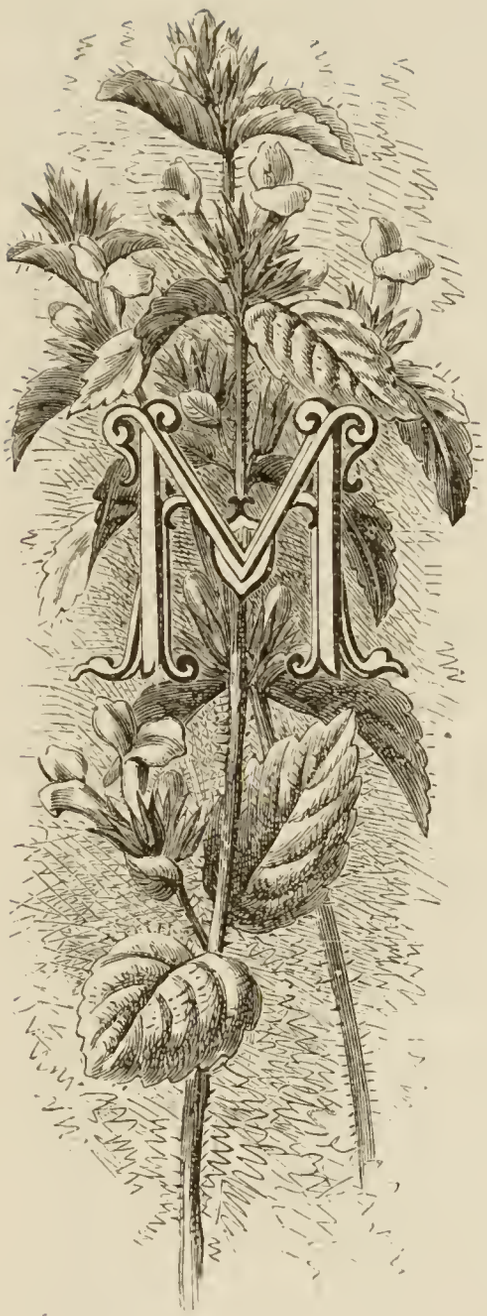
the differences are so slight as often to make it doubtful whether the plant be a variation at all, or merely an imperfectly nourished and developed plant, that would otherwise have been of the typical form, attempts have been made to give it an independent specific position, under the title of *S. rariflora*, or *S. Bahusiensis*.

Two or three other species of *Statice* are found around our shores, but as they are not by any means so common as the species we have figured, we need do little else than merely state the fact, leaving any of our readers who care to do so to turn to the description of them in any British flora, if they are so fortunate as to find a plant that is so far like our illustration as to lead them to think it some allied species.





HEDGE CALAMINT.



HEDGE-CALAMINT.

Calamintha clinopodium. Nat. Ord., Labiatæ.

MANY of our readers will no doubt be aware that in the earlier days of botanical science sundry artificial systems of plant classification were devised, but that these have all now passed away, and what are known as natural systems succeeded them. We speak of both the artificial and the natural in the plural, as each great principle received various modifications from different hands. The best-known example of an artificial system is that of Linnæus, a system based on the number and position of the stamens and pistil. By this method all plants were divided into classes, according to the number of their stamens, and these subdivided into orders based on the pistils. This was so far an advance, that any one finding a plant with six stamens, for example, referred it at once to the class hexandria, and if it had two pistils it belonged to the order digynia; by this means the ground to be hunted over

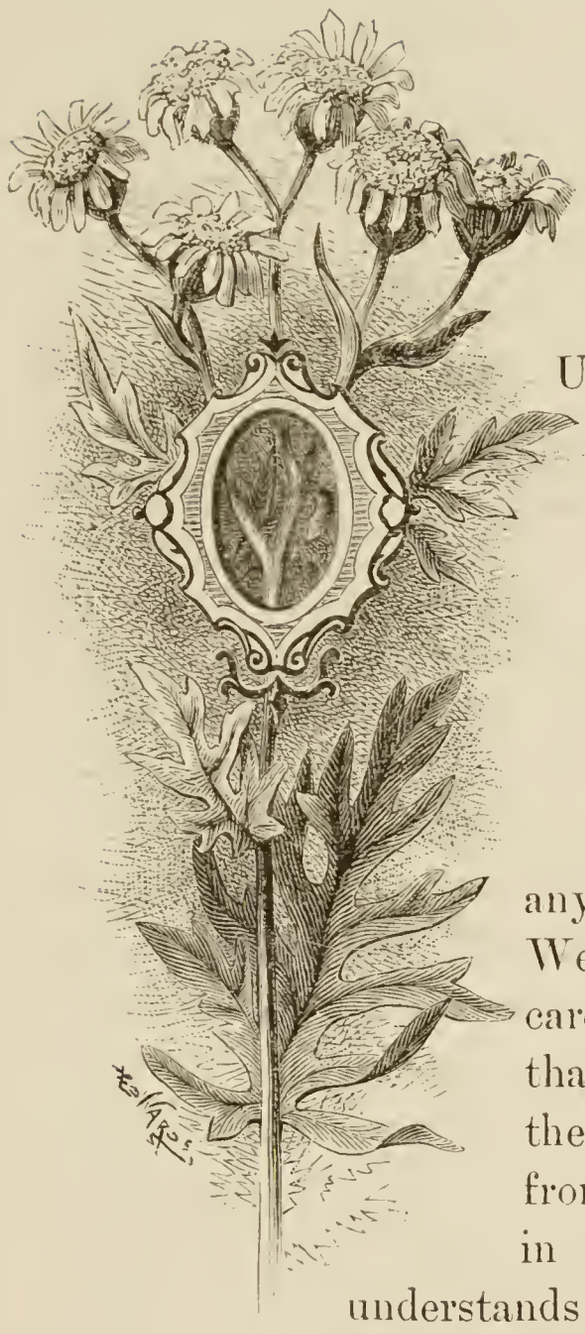
The generic name is derived from two Greek words, signifying good and merit—its goodness consisting in the ancient belief in its power to drive away serpents and the dreaded basilisk; while the specific name, *Clinopodium*, means bed-foot—"the tufts of the plant are like the knobs at the feet of a bed," an old writer tells us.

The basilisk was in mediæval times a fabled monster—the king of the serpents, and in calamint lore the sense of the word basil seems hopelessly obscure, the general medicinal value of the plant and its special efficacy in basilisk destruction being more or less mixed together, and the name is emphasised in one or the other direction according to the idiosyncrasy of the writer. If a basilisk only set his eyes on a man it caused his death. We see this idea in Shakespeare's Henry VI.: "Come, basilisk, and kill the innocent gazer with thy sight;" and Beaumont and Fletcher, too, in their "Woman-hater," speak of "the basilisk's death-doing eye." Under these circumstances the knowledge of the properties of herb-basil was a decided advantage. The only way, we are gravely told, to kill these monsters was to put a mirror in their haunts, as the actual sight of its own horror was no less fatal to itself than to mankind.





RAG-WORT.



RAG-WORT.

Senecio Jacobæa. Nat. Ord., Compositæ.

OUR present plant suffers from the misfortune of its commonness. Hooker, we see, speaks of it as "too plentiful." Were it not so familiar a plant, its sturdy growth and golden mass of star-like flower-heads would doubtless render it a favourite, but what people can see almost any day they soon cease to regard. We have seen many a tender plant carefully nurtured in the hothouse that has not the inherent beauty of the rag-wort, but then one comes from Java and the other can be got in the next field, and everybody understands what a difference that makes. Where the pastures are mown for hay the plant may be kept down, as the rag-wort, though a perennial, seems unable to thrive under such treatment, unlike many plants, that only shoot up more strongly and bushily than ever after being cut down. In pasture-lands and meadows that are not thus annually cleared the rag-wort escapes the bite of the horses and cattle and

develops into a large rank growth, occupying much room, and propagating itself abundantly by its downy seeds. A meadow well sprinkled over with the plants, each of them three or four feet high, and a mass of golden blossom at their summits, is a strikingly picturesque feature in the landscape, though possibly the human occupier of the ground may resent their presence. It is, however, a sight that one so often sees—some meadows having the plants in scores—that we can only conclude that the farmers either lack energy or do not think the space it encroaches on as being of much value; for a boy sent in for half a day would soon level them to the ground and lay their beauty low. It may quickly be pulled up by hand, if only the operation be performed in moist weather; if any considerable fibres be left in the ground the roots strike again. All such plants as the rag-wort or the various species of thistle should, if not absolutely eradicated, be cut down before their seeds ripen and get dispersed over the whole country-side; and this is a particularly easy thing to do, as they can be attacked at most advantage when their golden or purple tufts of flowers render them most conspicuously visible. It has been suggested that the plant might be used for dyeing, but we are not aware that the matter has ever been put to the true test of experience. Many people conclude that if a plant has bright and showy red or yellow or blue flowers, that such plant should yield a good red, yellow, or blue dye; but the properties that make them valuable as tinctorial plants are rarely found in the blossoms, and some of the best vegetable dyes come from plants that have little outward beauty, while the dyes they yield do not agree in tint with the colour of their blossoms.

In some parts of the country the rag-wort is accredited with the power of preventing infection. When people visit any one who is suffering from any illness that may be transmitted, they carry with them into the sick-room a piece of the plant, and thus, as they believe, are preserved from taking the complaint, whatever it may be. Some little time ago we heard of a case of an old village woman who had adhered to the practice ever since she was a girl, and still preserved a robust faith in the herbal specific.

The plant is called rag-wort, or rag-weed, from its very finely divided and somewhat ragged-looking leaves, "wort," of course, being the old name for a plant; thus we find awl-wort, bladder-wort, butter-wort, lung-wort, and many other examples. The leaf-segments seem to be more numerous and finer in proportion to the dryness of the soil; a moist soil develops ranker-looking plants, but the foliage, though larger, is not so deeply divided and cut up. The plant is in various parts of the country known under the names of St. James's wort, segrum, or seggrum, stammer-wort, and stagger-wort, and in Wales and Ireland it is known under the somewhat lengthy titles of "carnedd felen wrryw" and "pfullan buih balkisan" respectively. The apostolic title is a relic of mediæval days; in old herbals it is the *Herba Sancti Jacobi*, or the *Sancti Jacobi flos*, and in France one of its names is the *Fleur de S. Jacques*. The Latin word *Jacobus* is the equivalent of the modern James. Parkinson, we see, names the plant the *Jacobæa vulgaris*. "Stammer-wort" would seem to indicate a belief in its efficacy as a remedy for impediment of speech, and the other old names all refer to its supposed value to the veterinary surgeon and cattle-doctor. In an old herbal we find it put down as "a certaine remedie to help the

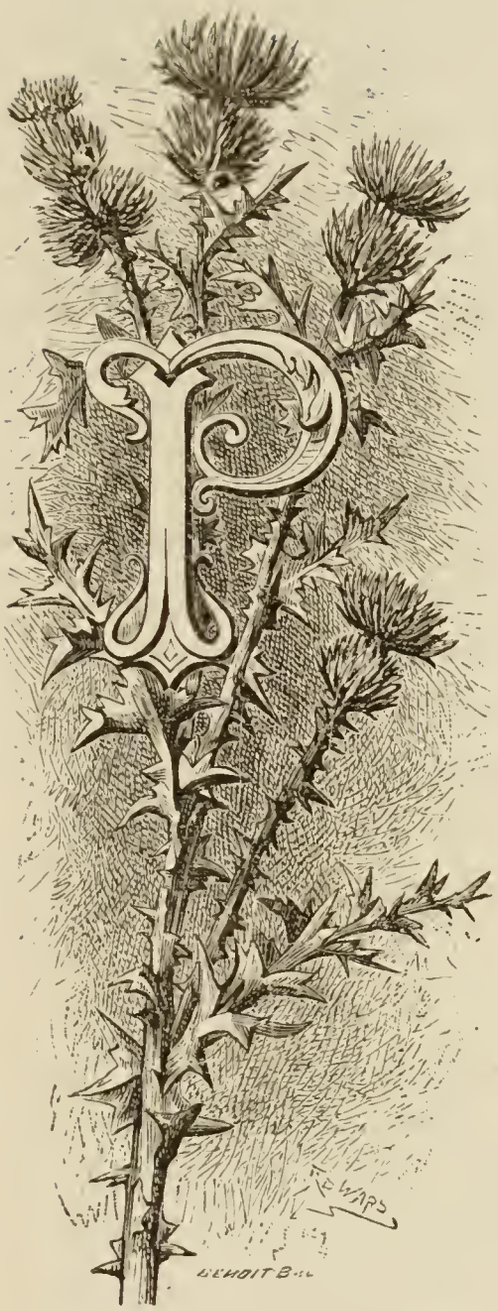
Staggers in Horses;" while for the diseases of humanity Culpepper tells us that "Rag-wort is under the command of Dame Venus, and cleanseth, digesteth, and discusseth." It is commended as a valuable remedy for sore throat, quinsy, catarrh, and the healing of wounds. It is also highly esteemed as a soothing application.

Entomologists will appreciate the rag-wort as the food-plant of the caterpillar of the beautiful cinnabar moth (*Callimorpha Jacobææ*), its second, or specific name, clearly testifying to its connection with our plant. The colour of the upper wings of the moth is a delicate brown, that bears on it a narrow crimson stripe and two crimson spots, and the hind wings are crimson throughout with a bordering of black. This beautiful moth is common and generally distributed in England, though in Scotland it is an entomological "find," from its great rarity. The larva or caterpillar is slightly hairy, has a black head, and its body is black, ringed with orange-yellow. It should be looked for on the rag-wort during July and August, and will ordinarily be found in companies.





FIELD THISTLE.



THE FIELD THISTLE.

Carduus acanthoides. Nat. Ord., Compositæ.

PROBABLY most of our readers flatter themselves that they know a thistle when they see it; but it is our duty to break in on so complacent a feeling, with the assurance that the word thistle stands for a numerous body of plants. We have already figured the musk thistle or nodding thistle (*C. nutans*), and the spear-plume thistle (*C. lanceolatus*), and in addition to the present species (*C. acanthoides*) we propose to figure another common kind.

The field thistle may be looked for by waysides and on waste lands. It also springs up in the farmer's fields; but it possesses one comparatively good feature, troublesome as it is, for, unlike the other species of thistle, it is an annual, and so far more readily eradicated. Like the other thistles, it sends its seeds flying far and wide on the breeze, and there can scarcely be a more hopeless sight for a careful farmer

covering; in the other variety—the one we have illustrated—the flower-heads are smaller and clustered three or four together on short stalks, while the leaves are clothed beneath with a woolly or cotton-like covering. This latter variety has been by some botanists dignified with independent specific rank, and called *C. crispus;* but the two forms run so into each other, and exhibit so many intermediate stages, that it is impossible to recognise any real specific characters.

The meaning of the generic name *Carduus* we have already explained in our comments on the other species. The second name, *acanthoides,* is Greek in its origin, and signifies that the plant is like the acanthus, the resemblance being in the forms of the foliage. The acanthus leaf will be familiar to many of our readers from the great use made of it in Greek and Roman architecture, and in our modern reproductions of their Corinthian and composite capitals. Most undoubted thistle-flowers and foliage appear in a good deal of Gothic work. Examples may be seen at Evreux, Sens, and many other places abroad, and no less good illustrations at home in the fourteenth century-work in our own cathedrals. The field thistle is sometimes called the welted thistle. In Wales it is the *Ysgallen grych.*





TUBEROUS PEA.



THE TUBEROUS PEA.

Orobus tuberosus. Nat. Ord., Leguminosæ.

WE have already given several illustrations of what the old writers call "peason and his kindes," and the present species, though lacking the delicate beauty of the wood vetch, the rich purple clusters of the tufted vetch, or the graceful habit of the meadow vetchling—all plants we have already figured—has a quiet attractiveness of its own that, joined to its abundance, gives it full right to a place in our series. In Wales our plant rejoices in a somewhat long name, and is known as the "pysen y coed gnapwreid-diawg." As we are acquainted with some half a dozen Welsh words only, we may, perhaps, be excused if we make the most of our knowledge, and hasten to explain that "coed" means a wood; this we learnt from a native of picturesque Bettws y coed: a name that, we are told, signifies the village in the wood. We may next make a happy guess, and assume that "pysen," of the Welsh, means much the same thing as peason did in England in the Elizabethan era,

and, combining our knowledge and our assumption, we may affirm that the first three words are equivalent in meaning to wood pea. We have not, however, got half-way through the Cymric name yet, but for obvious reasons we now change the subject.

In Ireland the tuberous pea is the "carmel." The old Gaelic name for our plant is the "caermeal," and we find it still in the North called the corr, the carmylie, the cairmeil, or the cormeille; the similarity of these names to the Irish appellation is obvious and striking. The tuberous pea is often called the wood pea or the heath pea, and we shall throughout the rest of our remarks use any one of these terms indiscriminately, as the more distinctive term, tuberous, is somewhat long and cumbersome.

The wood pea may be searched for in copses and open spaces in woods or under sheltering hedgerows during May, June, and July. The root-stock is perennial, and consists largely of many small black tubers and a few fibres; these tubers are edible. "The nuts of this pease being boyled and eaten are hardlier digested than be either turnips or parsneps, yet do they nourish no less than the parsnep;" but one good parsnip, as far as bulk is concerned, would cut up into a hundred or more of these tubers of the wood pea, so that ordinarily they can surely scarcely have paid for the trouble of digging up. Bryant, in his "Flora Dietetica," writes as follows of the tuberous pea:—"The roots of this, when boiled, are said to be nutritious. They are held in great esteem by the Scotch Highlanders, who chew them as we do tobacco, and thus often make a meal of them; for being of a sedative nature, they pall the appetite and allay the sensation of hunger." This caermiel, as the Highlanders call it, is supposed to be the "chara" referred to by Cæsar

in his "History of the Gallic War," and is probably the same as that referred to by another Roman historian as furnishing, when mixed with milk, a sufficient sustenance for a time, when the army of Valerius outran their commissariat department. The Scottish mountaineers grind these tubers into a kind of flour for bread-making purposes in time of dearth, and prepare an intoxicating drink from them; they also believe that they are efficacious for lung affections. This lowly plant is, therefore, at once meat, drink, and medicine, though it is doubtful whether it fulfils any of these functions very satisfactorily: in the same way that when we buy a penknife that is also a measure, a file, a cork-screw, a punch, and has some few other uses, we discern that its efficiency in any one of these modifications is, after all, not great, and that, on the whole, we should have done better to have got any one of these things unencumbered with the rest. A weapon that aspires to be at once bayonet and saw, a tool that professes to be at once axe and hammer, ends in being neither in any efficient degree.

The generic name of the wood pea, *Orobus*, is uncertain in its significance, but it has been suggested that it is derived from two Greek words signifying an ox and to strengthen, on account of its yielding food to cattle. Whether it ever does to any appreciable extent furnish provender to cattle is a very doubtful point, as the situations in which it thrives best are scarcely those in which we can expect to find stock at all. It is, at all events, no more a strengthener of the ox, we should think, than some fifty other plants that receive an occasional bite as they spring up by the hedge-row or skirt the copse. The foliage of this plant is a good deal eaten by some grub or insect of a species unknown to us, so that it is very difficult to find a piece unmutilated.

We have indicated this in the lowest leaf in our sketch. In a drawing it is easy enough to remove all trace of these depredations and to restore the broken outline, but when one desires to find a good specimen for pressing, drying, and preserving, the case is altered. Dried plants, though of great scientific value, are generally poor relics of departed beauty, and this is the case with this plant especially, as it seems impossible to prevent it from drying a dull black or a dismal brown. In some parts of the country the heath pea is called the nipper-nut, a very meaningless-looking name on the face of it; but when we also find it called nappart, we see that, like the knapweed, some knob-like part of the plant has caused the name to be employed. In the present plant the tubers have given it the name of knob-wort, or knap-wort, or nappart, and so by a further corruption from the original idea we at length arrive at nipper-nut.





RED BARTSIA.

RED BARTSIA.

Bartsia Odontites. Nat. Ord., Scrophulariaceæ.



THE red bartsia is too common a plant almost everywhere to be overlooked, though as Curtis, in his "Flora Londinensis," says, "it is not remarked either for its beauty or utility." It is not a brilliant or attractive plant, and will probably rarely find itself in the floral posy of the wayside stroller, being ordinarily either completely overlooked, or else held not fit company for its gayer contemporaries. At the same time, as it is abundant by the roadside, on rubbish-heaps, and in corn-fields, we may not here pass it by, and more especially as we may hope that our labours, to those who are interested in them, may have led to a closer scanning of the country-side, and those who overlooked the bartsia before may now turn to our pages for information respecting it.

The plant differs a good deal in size according to the place in which it grows, though except in mere bulk the

two pairs, one pair being provided with rather longer filaments than the other. The style is filiform, or thread-like, and terminates in a small and inconspicuous stigma. The capsule is of a rounded, oblong character, and is divisible into two cells, each containing several small whitish seeds. The bartsia is very closely allied to the eye-bright, the *Euphrasia officinalis*, another very common plant, and was therefore by many of the older herbalists called the red-flowered eye-bright; while it is in some respects not unlike the cow-wheat (*Melampyrum pratense*), a plant we figured in the previous volume, so that some mediæval writers, to be quite upon the safe side, gave it the long compound name of eye-bright cow-wheat, and almost all these ancient authorities classify it botanically as the Euphrasia. Linnæus himself, though he afterwards made a new genus, Bartsia, for its reception, called it Euphrasia in his "Systema Vegetabilium," published in 1784, as he had previously done in his "Flora Suecica," a book that appeared in the year 1755. The bartsia was so called by the great Swede after his friend Dr. Johann Bartsch, of Königsberg.

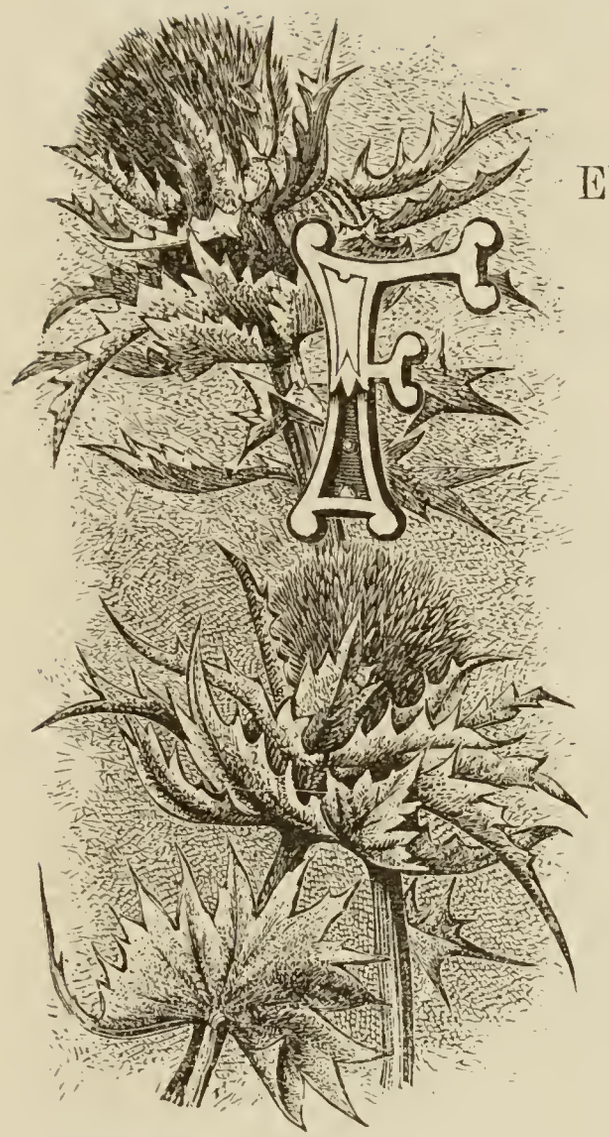




MILK THISTLE.

THE MILK THISTLE.

Carduus Marianus. Nat. Ord. Compositæ.



FEW of our native plants are more striking in appearance than a good specimen of this plant. The beautiful milk-white veins spread thickly on every leaf, the size of the leaves themselves, and the grandeur of the whole growth are points that must appeal to all beholders who have any eye at all for natural beauty, and few plants may more appropriately be transferred from the wild state to the beds of the flower-garden. It takes up a great deal of room, but where a garden affords plenty of space this is anything but a drawback, as it is a very noble-looking plant. It is possible, however, that the gardener might object to the free way in which the seed gets dispersed everywhere, and we know by our own experience that one consequence of introducing it is the necessity of freely weeding out the superfluous seedlings that spring up all over the garden. After all, however, they do not give anything

like the trouble that groundsel and many other garden-loving interlopers do, and the toil of a little preliminary hoeing is soon forgotten when the plants destined to be preserved are revealing themselves in all their beauty. The plant is a biennial, and should be looked for in hedges, banks, and on rubbish-heaps. It flowers during June and July; but the flowers, effective as they are, are not the crowning glory of the plant. The stalks of the milk-thistle are ordinarily from four to five feet high, though we have sometimes seen them over six feet in height. The lower part is often downy and groovy, the upper part smooth and finely channelled. The leaves near the root are boldly spread out into a great rosette, each leaf being a couple of feet or so in length, and deeply cut into broad and very prickly-margined lobes. The upper surface is very smooth and glossy, and marked all over with a broad network of white veins. It is impossible to even suggest the beauty of the appearance in the very limited space our plate affords; for we can but give an inch or two of the tip of one of these grand leaves—as hopeless a proceeding almost as that of the man in classic story who carried about a brick to give people an idea of his house. Occasionally the leaves are wholly green, and it then becomes necessary to avail ourselves of some other means of identification, none being more efficacious than the strong spiny head from which the blossoms emerge. The upper leaves are very much smaller, and clasp the stem tightly by the broad lobes at their bases; they are generally boldly bent back from the stems. The flower-heads are large, and of a rich crimsonish purple, while the florets are of the usual character we find in the thistle family. The scales of the involucre are foliaceous in character, and are armed with

formidable prickles, and after the flowering season is over the place of the florets is taken by the head of white down that rises from the seeds below, and that forms so marked a feature in the various kinds of thistles—a feature that is interesting in itself, and most efficacious in securing the distribution of the seeds. These seeds are numerous, blackish and shining, each being crowned with a tuft of stiffish down. They contain a certain quantity of oil, and have therefore been sometimes used in rural medicine; but their principal service, after the necessity of obtaining a supply of the plant, seems to be to provide a welcome repast for the goldfinch and several other grain and seed eating birds.

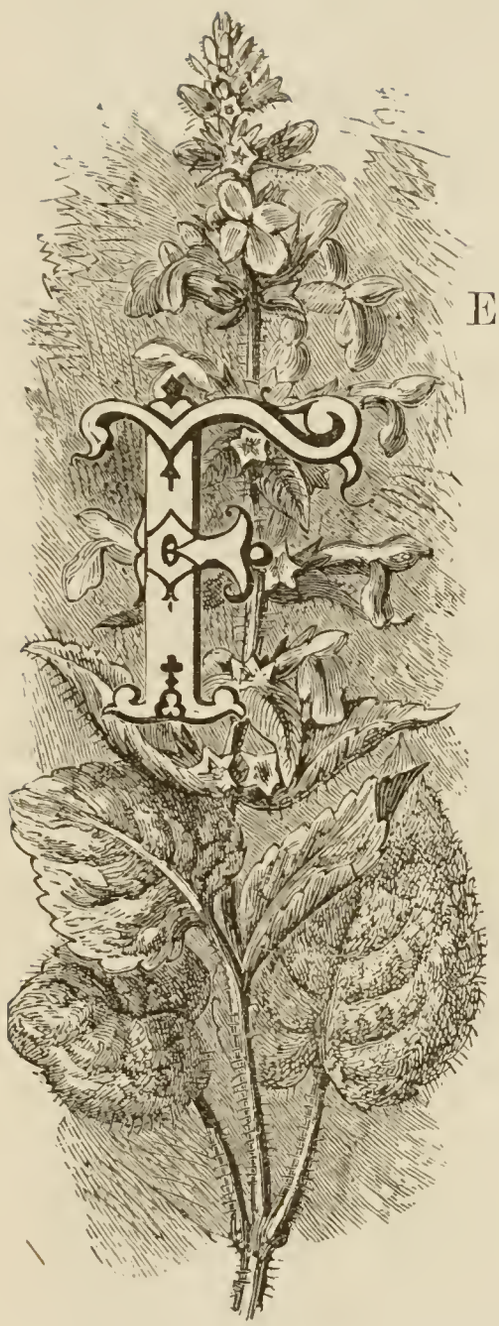
Besides the use of the seeds in emulsions, and the beauty of the plant when transferred to the garden, we are told that it may be eaten when young as a salad, though this is a statement that we should rather demur to, as even in their youngest seedling state they have an aggressive and well-armed look that would send one off to the lettuces in preference. We are also given to understand that the young stalks, peeled and soaked to take off a little bitterness that cannot quite be ignored, are excellent, either boiled as a table vegetable, or baked in pies like rhubarb-stalks. This may be so, but it brings at once to our mind a similar statement as to the culinary virtues of the common stinging-nettle. We had read that stinging-nettle leaves made an excellent table vegetable, so we one day determined to try them, as any quantity of them were springing up around our orchard. They were duly prepared, and everybody said the kindest things they could for them; but——we never had them again. The subject was tacitly dropped, and we returned in all true allegiance

to our kitchen-garden. Pliny tells us "It is not thought worth while to boil it, the cooking of it being so exceedingly troublesome, it is said." This leaves us in a very vague state of mind as to whether the people who disliked the trouble of cooking it discarded it in consequence or ate it raw. If we may at all judge their feelings by our own they probably adopted the former course. Culpepper says of the milk-thistle, "It cleanseth the blood exceedingly; and in spring, if you please to boil the tender plant (but cut off the prickles unless you have a mind to choak yourself), it will change your blood as the season changeth, and that is the way to be safe." Westmacott, too, writing in the year 1694, thus sings its praises and laments "the good old times":—"It is a Friend to the Liver and Blood: the Prickles cut off, they were formerly used to be boiled in the Spring and eaten with other Herbs; but as the World decays, so doth the Use of good old things, and others more delicate and less virtuous brought in."





HEDGE STACHYS.



HEDGE STACHYS.

Stachys sylvatica. Nat. Ord., Labiatæ.

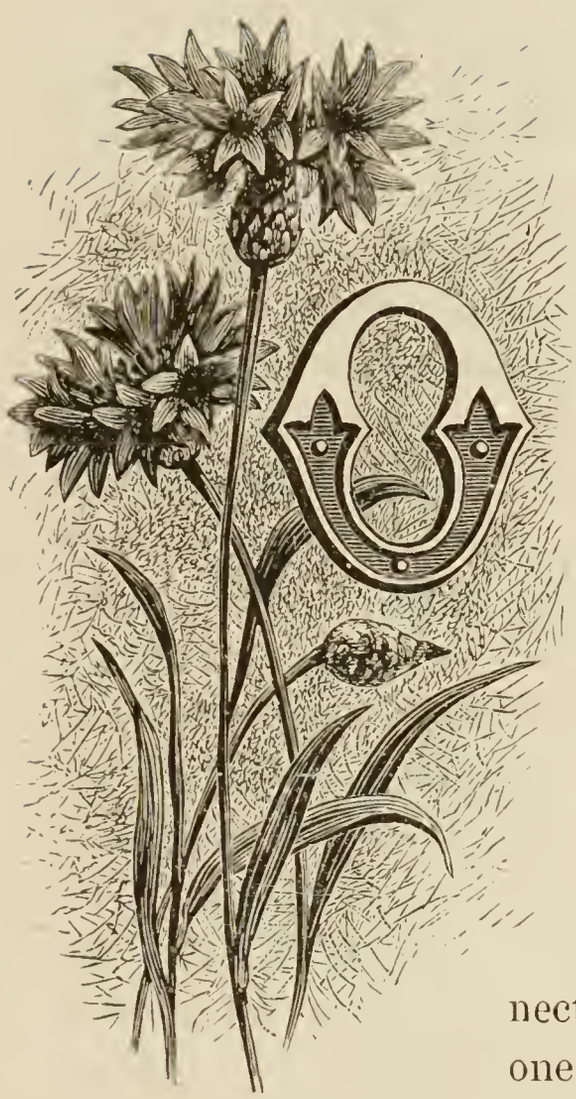
FEW country journeys in search of wild flowers will fail to supply us with examples of the hedge stachys, for it occurs abundantly almost everywhere, though its somewhat sombre blossoms do not court attention. When carefully examined, however, the motling and variegation of colour seen in them well repays investigation. The hedge stachys should be looked for in June, July, and August, and almost any shady hedge-bank or copse-side will yield us examples of it. It seems to prefer situations that are a little shaded from the direct rays of the sun, the shelter and the damp being both favourable to it. The plant would possibly be a greater favourite if it had not quite so strong an odour, for though some persons do not dislike it, many object to it, and more especially when the stem or leaves have got at all bruised. This powerful smell, added to the rather dull colour of its head of flowers, ordinarily banishes it from the rustic nosegay; and those who only gather the more attractive

England, and more particularly on limestone, but is by no means common. Its leaves have a dense covering of silky hair, and were at one time, in rustic surgery, employed in the place of lint for dressing wounds. The plant is a very common one on the Continent, and our native herbalists doubtless desired, if possible, to find similar virtues in an allied and more common British plant; and we are told many ways of applying the hedge stachys in the healing arts. One authority tells us that this plant, "stamped with vinegar and applied in manner of a pultis, taketh away wens and hard swellings, and inflammations of the kernels under the eares and iawes;" and it would appear to affect the mind no less powerfully than the body, for we are told that the distilled water of the flowers "is vsed to make the heart merry, to make a good colour in the face, and to make the vitall spirits more fresh and liuely." It is "singular commended" by many other old writers, but into their precepts and practice in the matter our limited space altogether forbids us to go.





CORN BLUE-BOTTLE.



CORN-FLOWER, OR CORN BLUE-BOTTLE.

Centaurea Cyanus. Nat. Ord., Compositæ.

OUR present plant forms one of the brilliant trio that gives such splendour of colour to the harvest-field, the golden marigold being another, and the scarlet poppy the third; and nowhere else do we find the three pure primary colours, the blue, the scarlet, and the yellow, in such intensity. Each of the plants we have named carries with it its connection with the harvest-field; for one is the corn-marigold, the other is the corn-poppy, or corn-rose, while the subject of our present illustration is called in an especial degree the corn-flower. The marigold will at times appear amongst other crops, and all who have seen the railway embankments ablaze with poppies will not need to be told that these, too, sometimes wander from their allegiance to Ceres; but the blue-bottle will very rarely be found away from the golden grain, and but few corn-fields would fail to yield examples of it. Throughout temperate Europe it is always found in such localities, but in the

hotter regions of the extreme south—in Sicily, for example—it deserts the plains, and must be looked for on the high-lying pastures of the mountain-sides.

Few plants are more hardy than the corn-flower, as its seedlings, which come up abundantly in the autumn, brave the severest frosts. The flowers are of the compound character with which we are familiar in the Composite order; the florets of the disk are small, purple, and numerous, while the outer radiating florets, that form the conspicuous beauty of the flower, are fewer in number, but much larger, widely spread, and of a brilliant blue tint. The anthers, five in number, of the central florets, form a cylindrical tube somewhat longer than the corolla whence they emerge, and form a noticeable feature. The ovoid involucre from which the flower-head springs was by old writers supposed to sufficiently resemble a flask to justify them in calling the plant the blue-bottle. It is covered by numerous tightly-compressed scales, each bordered by a margin or fringing of brown teeth. The flowers are scentless. The plant varies considerably in height, but about two feet might be considered a very fairly typical size; the general character of the plant is upright; the stems that are thrown off leave the central stalk at a slight angle, and preserve the general upright direction and effect. The flower-heads grow singly at the ends of these long stems. The stems are somewhat angular, and covered with a loose cottony down; their tough, wiry character will be at once appreciated by any one who may attempt to gather the azure coronals they bear at their summits, a considerable amount of bending, twisting, and tugging being necessary before they can be induced to part company. The upper leaves are arranged alternately on the stalk, and are very long as compared with

their breadth ; like the stems, they are covered with more or less of the white cobwebby down that gives the whole plant a somewhat dull and grey appearance. The lower leaves are much broader and blunter-looking than the upper, and often have a roughly-toothed or jagged outline, a feature which we do not find in the leaves that, from their higher position on the plant, more readily attract notice.

Though the brilliancy of its flowers makes it an attractive plant to the lover of natural beauty, the farmer regards the corn-flower as a pernicious weed to be carefully eradicated at sight ; and the reapers bear it no goodwill, for its tough stems blunt their sickles ; hence by many old writers the plant is called the "hurt-sickle." On this point the poet discourses feelingly, in the following scathing lines :—

> "Blue-bottle, thee my numbers fain would raise,
> And thy complexion challenges my praise ;
> Thy countenance, like summer skies, is fair ;
> But, ah! how different thy vile manners are.
> Ceres for this excludes thee from my song,
> And swains, to gods and me a sacred throng.
> A treach'rous guest, destruction thou dost bring
> To th' inhospitable field where thou dost spring.
> Thou blunt'st the very reaper's sickle, and so
> In life and death becom'st the farmer's foe."

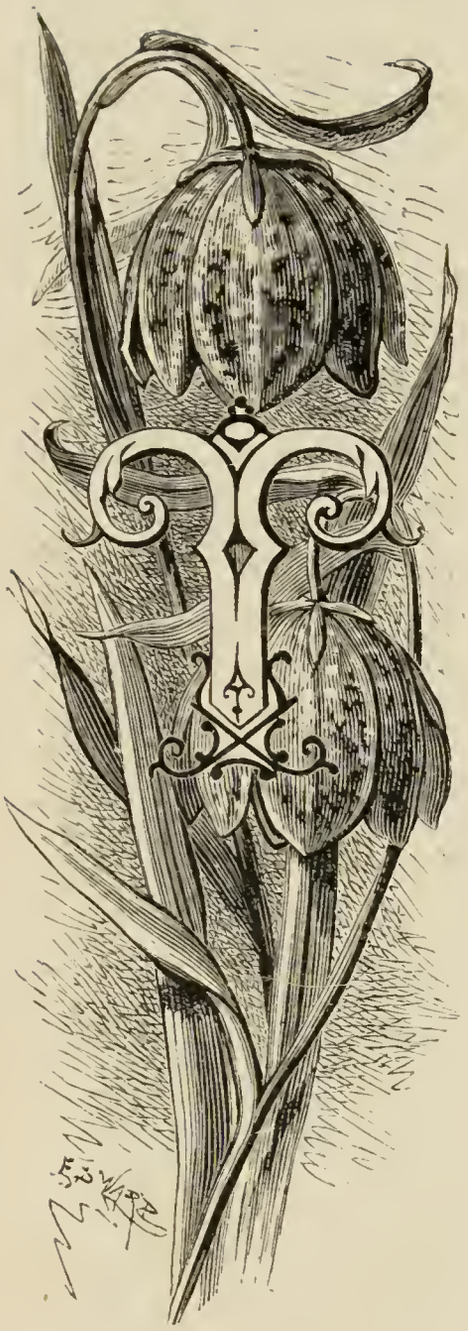
The corn-flower would appear to injure the farmer not only materially, but morally, for its presence convicts him of negligence, and holds him up to public gaze for his want of energy. Holditch, an old writer, in his "Essay on Weeds," includes this plant in his denunciation of the poppy, the May-weed, and the marigold, and says : "The above class, with their gaudy colours, proclaim bad farming to the landlord, the tenant, and the passenger, and announce the neglect of using clean seed-corn, judicious fallowing,

and horse-hoe husbandry." It is sometimes called "blue-bonnet" or "blue-cap" provincially, and in Scotland it is the "blawort." The Irish peasant calls it "gormon," the Welshman the "crammenog yr yd." In Germany its name is similar to our best-known English name—it is the "korn-blume," while in France it is known as the "blavelle," "blaverolle," or "bluet." In Italy its name has the same signification as the English name hurt-sickle. By some mediæval writers it is termed the *Flos frumentorum—frumentum* being the Latin word for corn. The meaning of the generic name we have already dwelt on, when speaking of the knapweed, another plant of the genus. The specific name, *cyanus,* is Greek in its origin, and refers to its beautiful colour. We also find a classical myth of one Cyanus, a devotee of Flora, and admirer in a general way of familiar wild flowers, whose chief occupation seems to have been to weave for the goddess garlands of this and other corn-flowers. Bauhin called our plant the *Cyanus segetum,* the "blue-flower that appears in the corn-fields," a sufficiently appropriate name.





FRITILLARY.



FRITILLARY.

Fritillaria meleagris. Nat. Ord., Liliaceæ.

THE fritillary is an exceedingly local plant, so that one may be noticing flowers for years and yet never have entered a district in which the subject of our illustration is found. Where it occurs, however, it is ordinarily in profusion, and comes up year after year. The fritillary springs up in moist meadows and pasture-land, and more rarely in the open glades of woods. It is found in various parts of England, but chiefly in the south and east; we do not hear of its occurring in either Scotland or Ireland. It flowers during the month of April, and only lasts for a short time. Curtis, in his "Flora Londinensis," mentions it as one of the plants found in the vicinity of the metropolis, giving as localities the meadows between Mortlake and Kew in the west, and similar situations round Enfield to the north of London, and again, to the south-east, in a wood at Bromley, in Kent. Blackstone, an earlier writer, incidentally mentions that it had been observed for

over sixty years growing plentifully near Roslip Common, in Middlesex; and Cullum, a contemporary, speaks of its growing in similar abundance around Bury St. Edmunds. It is also reported from several localities in Surrey and Sussex, and in one of the scientific periodicals we find a writer stating, "Found by me abundantly on an island in the Tame, near Tamworth, Staffordshire; and by a friend, in still greater profusion, in the damp meadows at Oxford, on the banks of the Isis." We hear of it in this way in various directions, and as whenever it occurs it is always recorded as being in abundance and covering a large area of ground, it may, we think, rightfully be included in our series, a point being perhaps additionally strained in its favour on account of its quaint singularity. One of our old authors, in speaking of it, says, "Of the facultie of these pleasant floures there is nothing set doune in the antient or later Writers, but are greatly esteemed for the beautifying of our gardens and the bosoms of the beautifull." A plant that has no "vertues" is itself a great singularity, and when almost everything was turned to some more or less practical use, based on some more or less recondite reasoning, we wonder greatly that this plant, which is also called snake's-head, was not an antidote for the biting of venomous serpents or some such perils and mischances. The name snake's-head does not strike one as being especially appropriate on an inspection of our illustration; but any one who has seen the plant before the blossoms are expanded will at once notice the resemblance between a snake's head and the bud of the plant, its form and colour being alike very suggestive of it.

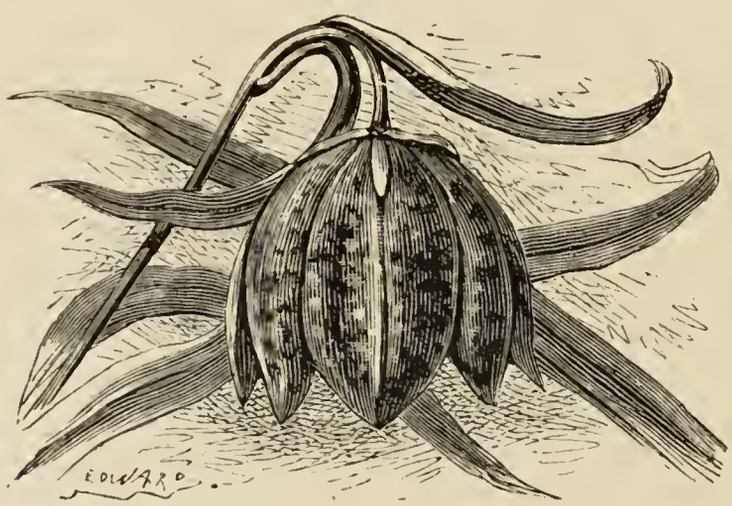
The root of the fritillary is bulbous in character. It is about as large as a hazel-nut, solid, white, roundish, and

enclosed as in a case by the withered and wrinkled bulb of the preceding year. It is a particularly easy plant to grow in one's own garden, only we must warn all who would attempt it that bulbs have many enemies, and it is very possible that mice or some other small foes may prepare a disappointment. The stalk of the fritillary is about a foot in height, upright, often purplish in colour, and bearing some three or four leaves arranged in an alternate manner along it, and terminating in a flower. The leaves partly embrace the stem, and are, as our illustration shows, long and slender. The single flower that each stem bears is of a graceful bell form, pendulous, composed of six equal segments, and at the base of each will be found inside a hollow space or nectary : this on the outside gives the curious raised and angular look that we see on the flower near its attachment to the stem. The flower is subject to a very considerable variation in colour, but the one we have figured is a very fairly typical specimen. The curious square chequerings will at once be noticed. Wherever it is met with one may expect to find one or two specimens having white flowers, as this is a particularly common form of variation. More rarely the characteristic chequering is replaced by purplish blotches on a yellowish green ground ; it has a livid and uncanny effect. We have ourselves seen both these variations, but the typical form is the most quaintly pleasing.

The old herbals often have very elaborate and allegorical woodcuts as frontispieces, and that of the "Rariorum Plantarum Historia" of Clusius, now before us as we write, is no exception. The book was published at Antwerp in the year 1601. We have Adam on one side, in the simplicity of costume of Eden's earliest days, and on the

other Solomon, with crown and royal robes and sceptre, bearing in his hands a book. Adam is claimed by the mediæval herbalists as not only a tiller of the ground but a student of botanical science, while Solomon, we all remember, wrote a treatise that dealt with plants, from the lordly cedar to the lowly hyssop of the wall. Above Adam, in a pot, is a Turk's-cap lily, and by his side is the fritillary, while Solomon has associated with him the cyclamen and the crown imperial.

The name *Fritillaria* is from the Latin *fritillus*, a dice-box, the chequered arrangement of the colours of the flower suggesting the board used in an old game. "It was called of the Greekes and Latines *Flos meleagris*, as a difference from a kinde of birde called also *Meleagris*, whose feathers be speckled lyke unto these floures, but not with violet speckes, but with white and blacke spots, lyke to the feathers of the Turkis or Ginny hen." This bird is the *Numidia meleagris*, or Guinea-fowl. The plant is sometimes called erroneously the wild tulip—another species altogether.





WATER FIG-WORT.



WATER FIG-WORT.

Scrophularia aquatica. Nat. Ord., Scrophulariaceæ.

WHEREVER we find a river, weed-bordered pool, or water-course of any kind, there we may fairly hope to find the plant here figured, though, as it has little to commend it, when we compare it with its fellows, the forget-me-not, the water-lily, the flowering rush, or the purple loose-strife, it, no doubt, ordinarily gets over-looked. The blossoms have a lurid colour and fantastic shape, that give the plant a somewhat weird and uncanny look, and one finds it difficult to imagine that any one could even have thought it a remedy for any of the ills of life, though its generic name is a sufficient indication that it has in the past been so held. Curtis, in his "Flora Londinensis," admits that the plant in its wild state has little to commend it as an ornamental plant, but he adds that when variegated few exceed it in beauty. He further tells us that in this state it was in his

day not uncommon in the nurseries about the metropolis. What the degree of variegation was he does not inform us, or whether it consisted of a mottling of the leaves or a change in the colour of the flowers; but the whole habit of the plant is so spare, and the flowers so minute in proportion to the plant as a whole, that any possible modification could scarcely hold its own amongst gayer plants, and the necessity of planting it in a very moist soil would tell still further against its general usefulness as a plant of the flower-border. Even in a wild state the dull dark purple of the flowers is sometimes changed into white, a modification that almost all red or purple flowers are subject to, as we may see in the bugle, hyacinth, meadow crane's-bill, and many other plants. Cattle do not seem to care for the plant, and its leaves have a decidedly disagreeable smell when bruised; but the bees are very partial to its sombre flowers, and the larvæ of some few species of moths feed on its foliage—a proceeding that tends possibly to its utility in the grand scheme of Nature, but which certainly does not add to its beauty. We almost invariably find the leaves more or less eaten by these caterpillars.

The root of the water fig-wort is perennial, and throws out numerous large fibres. The plant varies much in size, but a height of five feet would be a fairly typical measurement, though at times we find the plants more nearly approaching eight. The general character of the stem is distinctly upright, though from the rigid straight line of the main stem smaller lateral branches are thrown out. In texture the stem is smooth, a feature observable in most water plants, and when cut across the section, is seen to be four-sided, the angles being strongly developed. The stems are often more or less strongly reddish-purple in

colour. The leaves are placed in pairs on the stem, each succeeding pair being at right angles with the pair below it; all are on foot-stalks, and each pair is ordinarily separated by some considerable interval of bare stem from its neighbours. In form the leaves are somewhat heart-shaped, but often more oblong than those we have figured, and the veining is very conspicuous. Hooker truly says that they are "crenate-serrate, cordate-oblong, obtuse," and we leave this statement in all its simplicity, unmarred by any explanations of our own, to the consideration of our readers. The flowers are terminal, and surmount the whole; the inflorescence is paniculate, and at each branching we find a little floral leaf, or bract. The calyx has five conspicuous lobes, and these are fringed by a rather ragged-looking brown membraneous border. The corolla is almost globular, the lobes at its mouth being very short and broad; the two upper ones stand boldly out from the flower; the two lateral ones take the same general direction as the upper, but are much shorter; and the fifth is turned sharply downwards. There are four anther-bearing stamens, and ordinarily a fifth and barren one beneath the upper lip of the corolla. After the flowering is over we find the roundish capsules each containing numerous small brown seeds.

The water fig-wort is sometimes called the water betony, a name at one time the more common of the two. It was bestowed upon it from the resemblance of its leaves to the wood betony, but as it differs entirely from that plant in every other respect, the name may well be allowed to drop. The name fig-wort is derived from the form of the root in one of the species of Scrophularia. The *S. nodosa,* or knotted fig-wort, the species in question, is a fairly common plant. It derives its name from its thick and knotty roots,

the short stock giving forth a number of small tubers. The knotted fig-wort much resembles in its general habit the plant we have figured, though an inspection of the two together would sufficiently illustrate their specific distinction. Its leaves are much more acutely heart-shaped than those of the water fig-wort, and the calyx has only a very narrow margin to the lobes. The stem, too, has not the decided projections at its angles that we see in the plant more especially before us; and the plant, though found in rather moist, cultivated, or waste ground, and in damp woods, is not distinctly an aquatic, like the water fig-wort.

The water fig-wort varies so far in foliage and other respects that a variety called the *S. Ehrharti* has been recognised; while other writers give it full specific value, and recognise its claim to independent existence as a true species. The rare balm-leaved fig-wort, *S. Scorodonia*, is another species of the genus that in many respects resembles our plant: in fact, a strong family likeness runs through all the different kinds of fig-wort.



INDEX OF ENGLISH NAMES.

The Roman number refers to the Volume in which an account and figure of the plant may be found, and the Arabic number to the page.

Agrimony, II. 17
Anemone, II. 61
Apple, I. 17
Arum, I. 29
Autumnal Hawkbit, V. 1
Bee Orchis, II. 121
Betony, IV. 57
Bindweed, I. 145
Bird's-foot Trefoil, II. 21
Black Bryony, II. 73
Blackthorn, II. 81
Bladder Campion, IV. 121
Bog Asphodel, IV. 113
Bramble, I. 89
Broad-leaved Garlic, I. 53
Broad-leaved Plantain, III. 57
Brooklime, II. 33
Broom, IV. 41
Broom-rape, IV. 153
Bugle, II. 1
Bulbous Crowfoot, I. 49
Burdock, III. 69
Bush Vetch, I. 81
Butterfly Orchis, III. 1
Buxbaum's Speedwell, III. 81
Carrot, II. 89
Celandine, V. 77
Centaury, V. 97
Charlock, III. 125
Cherry, II. 133
Clustered Bell-flower, III. 117
Coltsfoot, III. 137
Comfrey, IV. 61
Common Avens, V. 9
Common Orchis, I. 53
Common Rock-rose, IV. 17
Corn Bluebottle, V. 149
Corn-cockle, V. 57
Corn Crowfoot, IV. 155
Corn Marigold, IV. 1
Corn Mint, II. 93
Corn Sow-thistle, I. 125
Cowslip, I. 105
Creeping Bell-flower, IV. 45
Creeping Thistle, V. 25
Cross-leaved Heath, II. 77
Cross-wort, IV. 93
Daffodil, II. 29
Daisy, II. 13
Dandelion, I. 45
Deadly Nightshade, IV. 129
Devil's-bit Scabious, IV. 85
Dewberry, III. 5
Dog-rose, III. 91
Dove's-foot Crane's-bill, V. 93
Dwarf Thistle, II. 113
Everlasting Pea, III. 21
Feverfew, III. 145
Field Scabious, IV. 25
Field Scorpion-grass, II. 97
Field Thistle, V. 129
Fleabane, I. 137
Flowering Rush, III. 85
Fool's Parsley, IV. 69
Forget-me-not, III. 129
Foxglove, IV. 137
Fritillary, V. 153
Fumitory, IV. 101
Furze, III. 45
Garlic Mustard, II. 69
Germander Speedwell, II. 65
Goldilocks, I. 65
Goose-grass, III. 13
Greater Willow-herb, I. 129
Green Hellebore, III. 61
Ground Ivy, V. 81
Groundsel, II. 105
Hairy St. John's Wort, IV. 65
Harebell, I. 77
Hawthorn, I. 133
Heart's-ease, V. 61
Heath, III. 65
Heather, V. 89
Hedge Calamint, V. 121
Hedge Mustard, IV. 73
Hedge Stachys, V. 145
Hemp-nettle, II. 125
Henbit, II. 109
Herb Robert, V. 49
Holly, III. 105
Honeysuckle, I. 93
Hop Trefoil, I. 149
Hound's-tongue, II. 85
Hyacinth, I. 41
Ivy-leaved Toadflax, II. 5
Kidney Vetch, IV. 5
Knot-grass, IV. 89
Lady's Mantle, II. 101
Lady's Smock, II. 41
Lamb's-tongue, III. 33

Larger Knapweed, V. 109
Leopard's-bane, V. 45
Lesser Celandine, I. 73
Lesser Red-rattle, V. 113
Lily of the Valley, IV. 77
Ling, III. 65
Mallow, V. 5
Marsh Marigold, II. 13
Marsh Thistle, II. 141
Meadow Barley, V. 9
Meadow Crane's-bill, I. 9
Meadow Crowfoot, III. 37
Meadow Saffron, V. 13
Meadow Saxifrage, IV. 33
Meadow Vetchling, V. 73
Melancholy Thistle, IV. 49
Milk Thistle, V. 141
Moneywort, IV. 21
Moschatel, III. 29
Mountain Poppy, III. 149
Mullein, III. 77
Musk Mallow, IV. 141
Nettle-leaved Bell-flower, IV. 117
Nipplewort, IV. 13
Nodding Thistle, IV. 145
Orpine, V. 101
Ox-eye, III. 73
Pansy, V. 61
Periwinkle, I. 69
Pimpernel, III. 153
Pink Campion, III. 89
Pink Persicaria, I. 113
Prickly-headed Poppy, V. 85
Privet, III. 109
Purple Loosestrife, IV. 157
Ragged Robin, V. 65
Ragwort, V. 125
Red Bartsia, V. 137
Red-berried Bryony, II. 149
Red Dead-nettle, I. 61
Red Meadow Clover, II. 57
Red Valerian, IV. 109
Rest-harrow, IV. 125
Sainfoin, IV. 9
Salad Burnet, II. 137
Sallow, III. 113
Saw-wort, III. 17
Scarlet Poppy, I. 25
Scentless Mayweed, V. 17
Sea Campion, III. 53
Sea Lavender, V. 117
Self-heal, IV. 133
Shepherd's Needle, II. 53
Shining Crane's-bill, V. 65
Silverweed, I. 13
Small Knapweed, I. 101
Small Willow-herb, IV. 105
Snowdrop, V. 69
Snowflake, V. 69
Sow-thistle, V. 41
Spear-plume Thistle, II. 9
Spindle-tree, III. 97
Spotted Orchis, III. 101
Starwort, II. 117
Stitchwort, III. 25
Stonecrop, III. 141
Stork's-bill, I. 85
Strawberry, III. 41
Succory, IV. 81
Sweet Briar, V. 105
Tansy, V. 33
Teasel, II. 145
Thrift, IV. 37
Toadflax, I. 109
Tormentil, I. 117
Touch-me-not, I. 141
Tuberous Pea, V. 133
Tufted Vetch, II. 37
Tutsan, I. 121
Valerian, I. 97
Vetch, III. 49
Violet, I. 33
Wallflower, II. 45
Wall Pennywort, III. 157
Water Avens, II. 157
Water-cress, II. 129
Water-figwort, V. 157
Water-ragwort, V. 29
Water-ranunculus, I. 65
White Campion, II. 25
White Dead-nettle, I. 61
Wood Loosestrife, II. 153
Woodruff, IV. 97
Wood-sage, V. 21
Wood-sorrel, I. 153
Wood-vetch, V. 37
Woody Nightshade, V. 53
Yarrow, III. 121
Yellow Dead-nettle, III. 25
Yellow Horned Poppy, II. 49
Yellow Iris, I. 57
Yellow Loosestrife, III. 133
Yellow Rattle, I. 157
Yellow Rocket, III. 9
Yellow Water-lily, IV. 29

INDEX OF BOTANICAL NAMES.

The Roman number refers to the Volume in which an account and figure of the plant may be found, and the Arabic number to the page.

Achillea millefolium, III. 121
Adoxa Moschatellina, III. 29
Æthusa Cynapium, IV. 69
Agraphis nutans, I. 41
Agrimonia Eupatorium, II. 17
Agrostemma Githago, V. 57
Ajuga reptans, II. 1
Alchemilla vulgaris, II. 101
Alliaria officinalis, II. 69
Anagallis arvensis, III. 153
Anemone nemorosa, II. 61
Anthyllis vulneraria, IV. 5
Apargia autumnalis, V. 1
Arctium Lappa, III. 69
Armeria maritima, IV. 37
Arum maculatum, I. 29
Asperula odorata, IV. 97
Aster Tripolium, II. 117
Atropa Belladonna, IV. 129
Barbarea vulgaris, III. 9
Bartsia Odontites, V. 137
Bellis perennis, II. 13
Betonica officinalis, IV. 57
Bryonia dioica, II. 149
Butomus umbellatus, III. 85
Calamintha clinopodium, V. 121
Calluna vulgaris, III. 61
Caltha palustris, II. 13
Calystegia sepium, I. 145
Campanula glomerata, III. 117
,, rapunculoides, IV. 45
,, rotundifolia, I. 77
,, Trachelium, IV. 117
Cardamine pratensis, II. 41
Carduus acanthoides, V. 129
,, Marianus, V. 141
,, nutans, IV. 145
Centaurea Cyanus, V. 149
,, nigra, I. 101
,, Scabiosa, V. 109
Centranthus ruber, IV. 109
Cheiranthus Cheiri, II. 45
Chelidonium majus, V. 77
Chrysanthemum Leucanthemum, III. 73
,, segetum, IV. 1
Cichorium Intybus, IV. 81
Cnicus acaulis, II. 113
,, arvensis, V. 25
,, heterophyllus, IV. 49
,, lanceolatus, II. 9
Cnicus palustris, II. 141
Colchicum autumnale, V. 13
Convallaria majalis, IV. 77
Convolvulus arvensis, I. 1
Cotyledon Umbilicus, III. 157
Cratægus Oxycantha, I. 133
Cynoglossum officinale, II. 85
Daucus Carota, II. 89
Digitalis purpurea, IV. 137
Dipsacus sylvestris, II. 145
Doronicum Pardalianches, V. 45
Epilobium hirsutum, I. 129
,, montanum, IV. 105
Erica cinerea, V. 89
,, Tetralix, II. 77
Erodium cicutarium, I. 87
Erythræa Centaurium, V. 97
Euonymus Europæus, III. 97
Fragaria vesca, III. 41
Fritillaria Meleagris, V. 153
Fumaria officinalis, IV. 101
Galanthus nivalis, V. 69
Galeobdolon luteum, III. 25
Galeopsis Tetrahit, II. 125
Galium Aparine, III. 13
,, cruciatum, IV. 93
Geranium lucidum, V. 65
,, molle, V. 93
,, pratense, I. 9
,, Robertianum, V. 49
Geum rivale, II. 157
,, urbanum, V. 9
Glaucium luteum, II. 49
Habenaria bifolia, III. 1
Helianthemum vulgare, IV. 117
Hordeum pratense, V. 9
Helleborus viridis, III. 61
Hypericum Androsæmum, I. 121
,, hirsutum, IV. 65
Ilex aquifolium, III. 105
Impatiens noli-me-tangere, I. 141
Iris pseudacorus, I. 57
Knautia arvensis, IV. 25
Lamium album, I. 61
,, amplexicaule, II. 109
,, purpureum, I. 61
Lapsana communis, IV. 13
Lathyrus pratensis, V. 73
,, sylvestris, III. 21
Leucojum æstivum, V. 69

Ligustrum vulgare, III. 101
Linaria Cymbalaria, II. 5
,, vulgaris, I 109
Lonicera Periclymenum, I. 95
Lotus corniculatus, II. 21
Lychnis diurna, III. 89
,, Flos-cuculi, V. 65
,, Vespertina, II. 25
Lysimachia nemorum, II. 153
,, nummularia, IV. 21
,, vulgaris, III. 133
Lythrum Salicaria, IV. 157
Malva moschata, IV. 141
,, sylvestris, V. 5
Matricaria inodora, V. 17
,, Parthenium, III. 145
Meconopsis Cambrica, III. 149
Mentha arvensis, II. 93
Myosotis arvensis, II. 97
,, palustris, III. 129
Narcissus pseudo-Narcissus, II. 29
Narthecium ossifragum, IV. 113
Nasturtium officinale, II. 129
Nepeta Glechoma, V. 81
Nuphar lutea, IV. 29
Onobrychis sativa, IV. 9
Ononis arvensis, IV. 125
Ophrys apifera, II. 121
Orchis maculata, III. 101
,, mascula, I. 53
Orobanche major, IV. 153
Orobus tuberosus, V. 133
Oxalis Acetosella, I. 153
Papaver Argemone, V. 85
,, Rhœas, I. 25
Pedicularis sylvatica, V. 113
Plantago lanceolata, III. 33
,, major, III. 57
Polygonum aviculare, IV. 89
,, Persicaria, I. 113
Potentilla anserina, I. 13
,, reptans, II. 37
,, Tormentilla, I. 117
Poterium Sanguisorba, III. 137
Primula veris, I. 105
,, vulgaris, I. 37
Prunella vulgaris, IV. 133
Prunus Cerasus, II. 133
,, communis, II. 81
Pulicaria dysenterica, I. 137
Pyrus Malus, I. 17
Ranunculus acris, III. 37
,, aquatilis, I. 65
Ranunculus arvensis, IV. 155
,, auricomus, I. 65
,, bulbosus, I. 49
,, Ficaria, I. 73
Rhinanthus Crista-galli, I. 157
Rosa arvensis, I. 5
,, canina, III. 91
,, rubiginosa, V. 101
Rubus cæsius, III. 5
,, fruticosus, I. 89
Salix caprea, III. 113
Sarothamnus scoparius, IV. 41
Saxifraga granulata, IV. 33
Scabiosa succisa, IV. 85
Scandix Pecten, II. 53
Scrophularia aquatica, V. 157
Sedum acre, III. 141
,, Telephium, V. 101
Senecio aquaticus, V. 29
,, Jacobœa, V. 125
,, vulgaris, II. 105
Serratula tinctoria, III. 17
Silene inflata, IV. 121
Silene maritima, III. 53
Sinapis arvensis, III. 125
Sisymbrium officinale, IV. 73
Solanum Dulcamara, V. 53
Sonchus arvensis, I. 125
,, oleraceus, V. 41
Stachys sylvatica, V. 145
Statice Limonium V. 117
Stellaria Holostea, III. 25
Symphytum officinale, IV. 61
Tamus communis, II. 73
Tanacetum vulgare, V. 33
Taraxacum Dens-Leonis, I. 45
Teucrium Scorodonia, V. 21
Trifolium procumbens, I. 149
,, pratense, II. 57
Tussilago Farfara, III. 137
Ulex Europæus, III. 45
Valeriana officinalis, I. 97
Verbascum Thrapsus, III. 77
Veronica Beccabunga, II. 33
,, Buxbaumii, III. 81
,, Chamædrys, II. 65
Vicia Cracca, II. 37
,, sativa, III. 49
,, sepium, I. 83
,, sylvatica, V. 37
Vinca major, I. 69
Viola odorata, I. 33
,, tricolor, V. 61

TABLE OF BOTANICAL ORDERS AND GENERA REPRESENTED IN THE WORK.

RANUNCULACEÆ.

Anemone nemorosa, II. 61
Ranunculus aquatilis, I. 65
,, Ficaria, I. 73
,, auricomus, I. 65
,, acris, III. 37
,, bulbosus, I. 49
,, arvensis, IV. 155
Caltha palustris, II. 13
Helleborus viridis, III. 61

NYMPHÆACEÆ.

Nuphar lutea, IV. 29

PAPAVERACEÆ.

Papaver Rhæas, I. 25
,, Argemone, V. 85
Meconopsis cambrica, III. 149
Chelidonium majus, V. 77
Glaucium luteum, II. 49

FUMARIACEÆ.

Fumaria officinalis, IV. 101

CRUCIFERÆ.

Cheiranthus Cheiri, II. 45
Barbarea vulgaris, III. 9
Nasturtium officinale, II. 129
Cardamine pratensis, II. 41
Sisymbrium officinale, IV. 73
Alliaria officinalis, II. 69
Sinapis arvensis, III. 125

CISTACEÆ.

Helianthemum vulgare, IV. 17

VIOLACEÆ.

Viola odorata, I. 33
,, tricolor, V. 61

CARYOPHYLLACEÆ.

Silene inflata, IV. 121
,, maritima, III. 53
Lychnis vespertina, II. 25
,, diurna, III. 89
,, Flos-Cuculi, V. 65
Agrostemma Githago, V. 57
Stellaria holostea, III. 25

HYPERICACEÆ.

Hypericum Androsæmum, I. 121
,, hirsutum, IV. 65

MALVACEÆ.

Malva sylvestris, V. 5
,, moschata, IV. 141

GERANIACEÆ.

Geranium pratense, I. 9
,, Robertianum, V. 49
,, lucidum, V. 65
,, molle, V. 93
Erodium cicutarium, I. 85

OXALIDACEÆ.

Oxalis acetosella, I. 153

BALSAMINACEÆ.

Impatiens Noli-me-tangere, I. 141

CELASTRACEÆ.

Euonymus europæus, III. 97

LEGUMINOSÆ.

Ulex europæus, III. 45
Ononis arvensis, IV. 125
Trifolium pratense, II. 57
,, procumbens, I. 149
Lotus corniculatus, II. 21
Anthyllis vulneraria, IV. 5
Onobrychis sativa, IV. 9
Vicia Cracca, II. 37
,, sylvatica, V. 37
,, sepium, I. 83
,, sativa, III. 49
Lathyrus pratensis, V. 73
,, sylvestris, III. 21
Orobus tuberosus, V. 133

ROSACEÆ.

Prunus communis, II. 81
,, cerasus, II. 133
Geum rivale, II. 157
,, urbanum, V. 9
Rubus fruticosus, I. 89
Rubus cæsius, III. 5
Fragaria vesica, III. 41
Potentilla Tormentilla, I. 117
,, anserina, I. 13
Alchemilla vulgaris, II. 101
Poterium Sanguisorba, II. 137
Agrimonia Eupatoria, II. 17
Rosa rubiginosa, V. 105
,, arvensis, I. 5
,, canina, III. 93
Pyrus Malus, I. 17
Cratægus Oxyacantha, I. 133

ONAGRACEÆ.

Epilobium hirsutum, I. 129
,, montanum, IV. 105

LYTHRACEÆ.

Lythrum Salicaria, IV. 157

CUCURBITACEÆ.

Bryonia dioica, II. 149

CRASSULACEÆ.

Cotyledon umbilicus, III. 157
Sedum Telephium, V. 101
,, acre, III. 141

SAXIFRAGACEÆ.

Saxifraga granulata, IV. 33

UMBELLIFERÆ.

Æthusa Cynapium, IV. 69
Scandix Pecten, II. 53
Daucus Carota, II. 89

ARALIACEÆ.

Adoxa Moschatellina, III. 29

CAPRIFOLIACEÆ.

Lonicera Periclymenum, I. 89

RUBIACEÆ.

Galium cruciatum, IV. 93
,, Aparine, III. 13
Asperula odorata, IV. 97

VALERIANACEÆ.

Centranthus ruber, IV. 109
Valeriana officinalis, I. 97

DIPSACACEÆ.

Dipsacus sylvestris, II. 145
Scabiosa succisa, IV. 85
Knautia arvensis, IV. 25

COMPOSITÆ.

Tussilago Farfara, III. 137
Aster Tripolium, II. 117
Pulicaria dysenterica, I. 137
Bellis perennis, II. 13
Chrysanthemum Leucanthemum, III. 73
Chrysanthemum segetum, IV. 1
Matricaria Parthenium, III. 145

COMPOSITÆ (*continued*).
Matricaria inodora, V. 17
Achillea Millefolium, III. 121
Tanacetum vulgare, V. 33
Senecio vulgaris, II. 105
,, aquaticus, V. 29
,, Jacobæa, V. 125
Doronicum Pardalianches, V. 45
Arctium Lappa, III. 69
Serratula tinctoria, III. 17
Carduus Marianus, V. 141
,, nutans, IV. 145
,, acanthoides, V. 129
Cnicus lanceolatus, II. 9
,, palustris, II. 141
,, arvensis, V. 25
,, heterophyllus, IV. 49
,, acaulis, II. 113
Centaurea nigra, I. 101
,, Cyanus, V. 145
,, Scabiosa, V. 109
Apargia autumnalis, V. 1
Sonchus arvensis, I. 125
,, oleraceus, V. 41
Taraxacum Dens-leonis, I. 45
Cichorium Intybus, IV. 81
Lapsana communis, IV. 13

CAMPANULACEÆ.
Campanula glomerata, III. 117
,, Trachelium, IV. 117
,, rapunculoides, IV. 45
,, rotundifolia, I. 77

ERICACEÆ.
Calluna vulgaris, III. 65
Erica cinerea, V. 89
,, Tetralix, II. 73

PRIMULACEÆ.
Primula veris, I. 105
,, vulgaris, I. 37
Lysimachia vulgaris, III. 133
,, nummularia, IV. 21
,, nemorum, II. 153
Anagallis arvensis, III. 153

AQUIFOLIACEÆ.
Ilex Aquifolium, III. 105

SALICACEÆ.
Salix caprea, III. 113

OLEACEÆ.
Ligustrum vulgare, III. 101

APOCYNACEÆ.
Vinca major, I. 69

GENTIANACEÆ.
Erythræa Centaurium, V. 97

CONVOLVULACEÆ.
Convolvulus arvensis, I. 1
Calystegia sepium, I. 145

BORAGINACEÆ.
Myosotis palustris, III. 129
,, arvensis, II. 97
Symphytum officinale, IV. 61
Borago officinalis, I. 21
Cynoglossum officinale, II. 85

SOLANACEÆ.
Solanum Dulcamara, V. 53
Atropa Belladonna, IV. 129

OROBANCHACEÆ.
Orobanche major, IV. 153

SCROPHULARIACEÆ.
Verbascum Thapsus, III. 77
Linaria vulgaris, I. 109
,, Cymbalaria, II. 5
Scrophularia aquatica, V. 157
Digitalis purpurea, IV. 137
Veronica Beccabunga, II. 33
,, Chamœdrys, II. 65
,, Buxbaumii, III. 81
Bartsia Odontites, V. 137
Rhinanthus Crista-galli, I. 157
Pedicularis sylvatica, V. 113
Melampyrum pratense, IV. 53

LABIATÆ.

Mentha arvensis, II. 93
Calamintha Clinopodium, V. 121
Nepeta Glechoma, V. 81
Prunella vulgaris, IV. 133
Stachys sylvatica, V. 145
Galeopsis Tetrahit, II. 125
Betonica officinalis, IV. 57
Lamium album, I. 61
,, amplexicaule, II. 109
,, purpureum, I. 61
Galeobdolon luteum, III. 25
Teucrium Scorodonia, V. 21
Ajuga reptans, II. 1

PLUMBAGINACEÆ.

Statice Limonium, V. 117
Armeria maritima, IV. 37

PLANTAGINACEÆ.

Plantago lanceolata, III. 33
,, major, III. 57

POLYGONACEÆ.

Polygonum aviculare, IV. 89
,, Persicaria, I. 113

PAPILIONACEÆ.

Sarothamnus Scoparius, IV. 41

ARACEÆ.

Arum maculatum, I. 29

BUTOMACEÆ.

Butomus umbellatus, III. 85

ORCHIDACEÆ.

Orchis mascula, I. 53
,, maculata, III. 101
Habenaria bifolia, III. 1
Ophrys apifera, II. 121

IRIDACEÆ.

Iris pseudacorus, I. 57

AMARYLLIDACEÆ.

Narcissus Pseudo-narcissus, II. 29
Galanthus nivalis, V. 69
Leucojam æstivum, V. 69

LILIACEÆ.

Convallaria majalis, IV. 77
Fritillaria Meleagris, V. 153
Agraphis nutans, I. 41

JUNCACEÆ.

Narthecium ossifragum, IV. 113

MELANTHACEÆ.

Colchicum autumnale, V. 13

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